

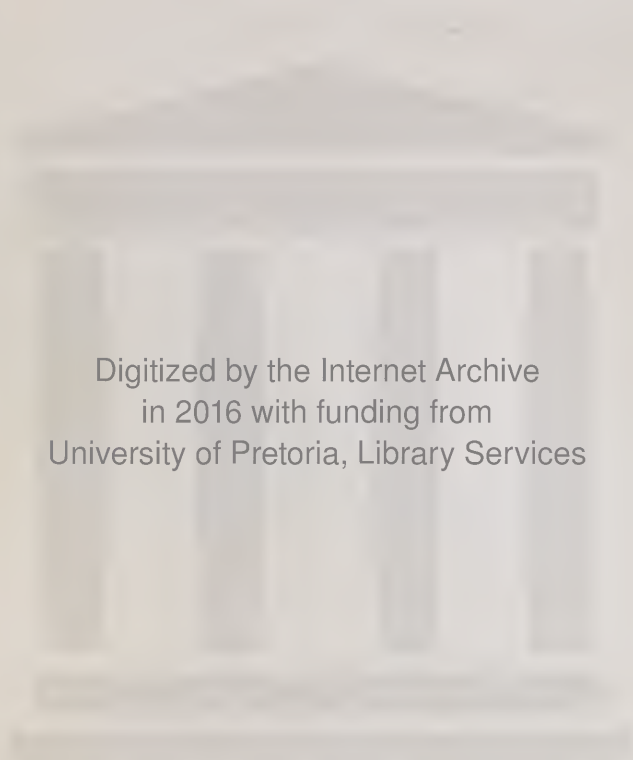




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THE BACKBONE OF AFRICA



Frontispiece.]

"ON SAFARI." CROSSING A RIVER.

THE BACKBONE OF AFRICA

*A RECORD OF TRAVEL DURING THE GREAT WAR, WITH
SOME SUGGESTIONS FOR ADMINISTRATIVE REFORM*

BY

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WITH PHOTOGRAPHS AND MAPS

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INTRODUCTION

FOR diversity of interest, climate, production, and natural resources suitable to development by European settlers, no part of Tropical Africa has greater attractions and possibilities than the backbone, or axis, of the continent, which serves as an inland highway from the Zambezi River to the head-waters of the Nile. It is a well-defined regional area. Most of the great Lakes of Africa are contained in it, linked up by Rift valleys; and practically all the colonising Powers have access to its borders or their own territories in the highland regions. But, in the main, it is a British Highway, extending throughout the length of the continent from sea to sea. Communications—representing, in effect, a trunk-line tapped by railways from the East Coast, with projections from the West—are facilitated by lake and river connections; and the native inhabitants, more vigorous than their lowland brethren, are amenable to European control. In the work of reconstruction, following upon the upheaval in European politics and world-wide connections, there have been many problems to solve; and among these may be reckoned the repartition of certain African lands, or,

at least, a readjustment of their boundaries. The main object of this book, apart from its record of travel, is to provide a contribution to the material upon which such an inquiry must necessarily be based.

From a geographical point of view, the continental axis is of exceptional interest, owing to the occurrence of the long and almost continuous groove of Rift Valleys, running north and south across the Central African plateau: a line of fracture of the earth's crust. Without speculating as to the origin of these fractures and troughs or distinguishing between the Great Rift in the east and the still more striking western dislocation—not to speak of their extreme extensions north and south—this mighty Rift may be said to begin at the Zambezi River, run up the Shire River valley to Lake Nyasa, then up the trough of that lake to its northern extremity, where the Rift shifts slightly to the north-east and follows the valley of Lake Rukwa almost to the south end of Lake Tanganyika; thence, by the trough of that lake, and beyond, by the Rusisi valley, to Lake Kivu; up that lake, and on by the Ruchuru valley, Lake Edward, the Semliki valley, and Lake Albert to the River Nile—a total distance of some seventeen hundred miles. Both sides of this lengthy line of depression rise more or less steeply to heights varying between four thousand feet above sea-level in the southernmost portion and eight thousand feet and over in the northern sections. Comparatively little drainage enters the Rift from either side, the

catchment areas being confined to the inner slopes of the furrow, with slight exceptions here and there: e.g., the Malagarazi River, entering Lake Tanganyika from the east, and one or two smaller rivers flowing into Lake Nyasa from the west. Almost all the country lying immediately east or west of the Rift is beautiful and desirable. About Lake Kivu, the floor of the depression is at its greatest elevation, and the adjoining lands attain their greatest heights: here, too, lie some of the most charming districts to be found in all Africa, with a healthful climate, fine scenery, grazing and agricultural lands.

The first of the three journeys recorded in this book began at Beira, in Portuguese East Africa, whence, after a preliminary run by rail through Southern and North-Western Rhodesia to Katanga and back, I went overland to the Zambezi and Nyasaland. From Lake Nyasa I travelled through North-Eastern Rhodesia to Lake Tanganyika, and up the lake to its northern extremity, whence I entered the Belgian Congo and visited the southern limits of the Equatorial forests. I then struck east to the beautiful districts surrounding Lake Kivu, reaching my farthest north on that journey in the Ruchuru plains bordering the southern end of Lake Edward, and returning to the east coast through Ruanda (German East Africa), Uganda, and British East Africa.

On my second journey, I again visited British East Africa and Uganda and entered Congo territory at the Semliki River, a short distance north of the point

where I left it on my first expedition. From the Semliki, on this occasion, I travelled through the upper basins of the Ituri and Welle Rivers and visited the Kilo goldfield in the Belgian Congo, returning by the same route to the East Coast.

My third journey started from a different base. From Port Said and Cairo, I went up the Nile by steamer and rail to Khartoum, and on by steamer to Rejaf, the head of navigation on the White Nile. From Rejaf I travelled to Aba, in the Belgian Congo, and again traversed all the northern portions of the Congo goldfields, crossing my previous route at several points. From this last journey, after suffering shipwreck on the White Nile, I returned to Cairo and Alexandria.

These three journeys covered practically the whole of the suggested "Cape to Cairo" route, and the countries visited were Portuguese East Africa, Nyasaland, German East Africa, British East Africa, Uganda, the Belgian Congo, the Anglo-Egyptian Sudan and Egypt. Of these, the region that made the strongest appeal to me was that of Lake Kivu, with its picturesque highlands, charming climate, and mighty volcanoes. Here I was fortunate enough to witness a great volcanic eruption and to be present at the birth-throes of a new volcano.

I regret only that, in the absence of any intention to publish the results of these journeys, my diaries were kept too briefly to be of much service to me in the present record; and the meagre account which

I give is to some extent based on memory for details. My purpose, however, will be served if this bare record helps to interest the reader in a region which, taken as a whole, represents the most promising field for economic development and the most suitable highway penetrating through the tropical zone of the African continent.

In order to strengthen the hands of British and Imperial representatives, it seems to me desirable that a body of considered public opinion should be formulated on the problems of reconstruction and development in Eastern Equatorial Africa. I have therefore, in the last chapter, expressed without hesitation my own personal views on these problems, based on the experience of many years spent in those countries.

I have also added my ideas on the much discussed question of a railway from the Cape to Cairo.

A. S.



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“THE BACKBONE OF AFRICA.”

Author's route marked thus

THE BACKBONE OF AFRICA

CHAPTER I

VOYAGE TO BEIRA

Union Castle Steamship Company's enterprise—Transshipment at Mombasa—East Coast ports—Zanzibar—Beira.

EARLY in 1912, I left England for Portuguese East Africa, with my travelling companion, the Hon. M. W. Elphinstone. Our route was by Marseilles (where we joined the Union Castle Company's Steamship *Gaika*) through the Mediterranean, the Suez Canal and Red Sea, to Beira.

The difficulties which the Union Castle Company had to overcome, in the establishment of this service, were very great. Practically the whole of the East Coast freighting trade was already in the hands of the German East African Steamship Company, whose enterprise, under the complacent observation of our own Government, and heavily subsidised by Germany, was carried through with a thoroughness that deserved the success it enjoyed. The English Company, therefore, was severely handicapped: it had no subsidy, and it had a powerful competitor

well established in public favour—even with British travellers and traders. In breaking down this monopoly, by establishing a regular line of steam communication with our East African possessions, the Union Castle Company has performed a national task and deserves the highest credit for the comparative success of their undertaking. Before their intervention, it was humiliating for British officials to have to be dependent on a German steamship line for the voyage out to their posts.

Coming from England in the early spring, one does not experience any considerable rise of temperature until Suez is passed, and no tropical heat until well south of Port Sudan. This flourishing port, serving Khartoum and the Anglo-Egyptian Sudan, is an example of what can be done with a free hand and adequate financial support. The harbour of Port Sudan is excellent, the railway from Khartoum and Berber extends to the new wharves, and steamers of any size can lie alongside. There is ample frontage to meet demands for increased wharfage; electric cranes and up-to-date installations are provided; and large quantities of produce from the Sudan are readily handled. The port will grow in importance, as the rich districts of the Upper Nile are developed.

Leaving Aden, and rounding the Horn of Africa (the interior of which is one of the least known corners of the continent), we kept close inshore during our seven days' run to Mombasa. On the way, we received a Marconigram informing us of an

accident to the *Gascon*, necessitating the transference of her passengers to the *Gaika* at Mombasa. This, unfortunately, involved the transhipment of our own passengers to the German East African Steamship *Rhenania*, bound for Tanga, Dar-es-Salaam, Zanzibar, Chinde, Beira and Durban. To make matters worse, we found, on arrival at Mombasa, that the *Rhenania* was on the point of sailing, leaving us only an hour or two to get on board. It caused us a very hurried scramble. The German steamer, however, had excellent accommodation; and we were given palatial cabins. The passengers, including Government officials and planters, were mostly German.

Tanga, in German East Africa, was our first port of call after leaving Mombasa. The harbour is good, but lacks accommodation for large ships. The town, of no great size, is well laid out.

A railway runs from the port of Tanga through Usambara to Moschi, the old German military headquarters, on the slopes of Kilimanjaro. Kahe, on this line, is connected with Voi, on the Uganda Railway, by a line which was built during the war across the Serengeti plains. This highland country, about three thousand feet in elevation, is well settled and planted with cotton, coffee, tobacco, and fibres. There are coco-nuts in the coastlands; and the export of copra, mangrove bark, and oil-seeds is considerable.

It is interesting to compare German methods with our own. In some respects they excel us, but not

in the conduct of colonial affairs. Officialism, of course, is rampant; but their chief defect, as administrators, is their rough and unsympathetic attitude towards the native population and disregard of their customs.

We spent a day or two at Zanzibar. Formerly the centre of the East African trade, it was famous in the early days of African exploration and development; but its glory has now waned. Mombasa, Tanga, and Dar-es-Salaam have attracted much of its business and reduced its importance as a trade centre. The island, however, is rich, producing cloves, coco-nuts, and other tropical products. For Europeans, the climate is not very favourable.

Much might be done in Zanzibar Island, in the way of agricultural development, if there were an industrious native population. The soil is rich, and the rainfall abundant; but all cultivation is carried on in the usual slovenly African fashion. When the clove trees yield a good crop, Arab owners make money and thereby are enabled to reduce their debts to the Indian merchants. The cultivation of coco-nuts, too, might be greatly extended: it is a sure crop, and there are no devastating local hurricanes. Rubber also should do well, under proper management.

Passing to the south, Cape Delgado and the table-topped mountain on the mainland behind Mozambique were our next landfalls. Mozambique, itself, is merely a collecting depôt, a considerable trade being done in oil-seeds, ground-nuts, and ebony.

This is a Coast trade, which the German shipping company soon mopped up. As a station of the Eastern Telegraph (cable) Company, Mozambique is of some importance. The town is quaint enough, and has many interesting features. Built on a small island, it has no water-supply other than large cemented tanks specially constructed to store rain water. The fort, now used as a prison, is said to have been built some four hundred and fifty years ago and is still in a good state of preservation. Bearing in mind the newness of our own East African settlements, it is somewhat startling to reflect that this fort was built at the time of the conquest of Mexico.

The Portuguese, in choosing sites for their East African settlements, took islands in preference to positions on the mainland, mainly, no doubt, for security against native attack. The fine natural harbours of Pemba Bay (Port Amelia), Fernao Valoso, and Mokambo have thus been neglected and practically unoccupied: the time must come, however, when their unrivalled value will be recognised, since the Coasts most rapidly developed in modern times are singularly poor in harbours.

Proceeding still farther south, we arrived off the bar of the Chinde River and anchored in the roadstead. The Chinde, although one of the smaller mouths of the Zambezi, offers the best channel from the sea into the main stream of the river. Large steamers calling here have to cast anchor some two miles from the shore; and the view of the low-

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lying Coast, fringed with mangrove swamps, is unattractive.

Chinde is the port for Nyasaland. Our inland Possession having no port of its own, we use a "concession," twenty-five acres in extent, forming part of the town of Chinde, which has been leased by Portugal to Great Britain, for the purpose of landing, storing, and transshipping cargoes. The river journey from Chinde to Chindio—the southern terminus of the Nyasaland Railway—is about two hundred miles. Transport is effected by stern-wheel steamers, which have fair accommodation for passengers; and these tow, alongside, large barges for carrying cargo.

Twelve hours further coasting brought us to our destination by sea. Beira—one of the few good ports on the South-Eastern Coast of Africa—is the natural outlet for the trade of Rhodesia, Nyasaland, and Katanga. Except that a fairly strong tide runs in the Pungwe River, the harbour is good. Steamers of seven or eight thousand tons can cross the bar at half tide. With its wharves and piers, its business is being steadily increased by the railway to Rhodesia. When the projected line to the Zambezi—to connect with the Nyasaland Railway at Chindio by a bridge across the river—is built, Beira will become a still more important commercial centre, and Chinde will almost cease to exist as a port.

The port of Beira belongs to the Mozambique Company. This Portuguese Association exercises

charter-rights over a large extent of territory, extending from the Coast to the borders of Southern Rhodesia and including some of the finest lands in Southern Africa for sugar, cotton, tobacco, and maize. Land is cheap, and native labour fairly inexpensive. The town is built on a sandbank, more or less, and is entirely modern.

Beira is only a few miles north of the settlement of "Sofala," which in very ancient times gave access to the goldmining districts of Mashonaland, worked by some forgotten race. Of course, there has been much discussion as to the origin of the people who obtained such fabulous quantities of gold from these mines and who constructed the buildings at Zimbabwe, the ruins of which are one of the sights of Southern Africa. Two things, at least, seem clear. First, that some trading people, in very ancient times, obtained large quantities of gold from Mashonaland, using the port of Sofala. Second, that as far back as King Solomon's time, rich supplies of gold (with ivory, apes, and feathers) were obtained from a distant country, to reach which vessels had to proceed down the Red Sea. It appears to me that this gold must have come from Mashonaland. The pioneer navigators who left the Red Sea to trade in unknown parts of the world would not strike out into the open ocean: they would hug the Coast of Africa. Whether or not it was in King Solomon's time that gold was obtained in Mashonaland, it is at any rate certain that the navies of his day must have known the whole of the East

African Coast quite well. Equally certain is the fact that no native African race, of which any trace is left to-day, could, unsupervised, ever have built the Zimbabwe structures; nor is it at all likely that Muhammedan traders of a later period were the original workers of the goldmines.¹

At this gateway of Africa, we entered a country of traditional richness which the modern trader is making his own.

¹ It may not be generally known that the word Zimbabwe (Zimbaboe, or Zimaoe) is, in several South Central African dialects, merely the plural form of Mawe, Maoe, or Mbaoe: it means "stones." There is a small rocky islet near the south end of Lake Nyasa known locally, by the natives, as Zimbabwe—i.e., stones.

CHAPTER II

THROUGH RHODESIA TO KATANGA

A railway trip—The Victoria Falls—Livingstone—Elizabethville
—Katanga copper belt—Communications with the Coast.

BEFORE starting on our overland journey to the great lakes, we made a railway trip to Katanga through Rhodesia. Our special car, in which we spent three weeks, had a saloon, two sleeping cabins, a bath cabin, kitchen, pantry, and an outside or observation platform.

The railway to Rhodesia, after leaving Beira, runs for the most part through low-lying country, scantily bushed. Crossing the flats of the Pungwe River, there is a gradual rise through a dense growth of jungly bush, with fine soil in places; and beyond Gondola, farms, cultivated by European settlers, begin to appear; maize is the chief crop, but some cotton and tobacco are grown in the district. Macequece¹ (Massikessi), near the Portuguese frontier,

¹ At Macequece we visited the experimental agricultural station at Vumba—a lovely spot, over five thousand feet above sea-level. Much work is being done there, in the interest of settlers in the Mozambique Company's territories, with a view to testing the value of crops. Cotton, tobacco, coffee, tea, black wattle, and other plants showed good results.

lies as high as three thousand feet above sea-level; Umtali, on the other side of the frontier, is still higher; and at Marandellas, when we woke the next morning, we were shivering with cold on the great Rhodesian plateau. Thence to Salisbury is through high-lying, undulating country. The weather was perfect along this stretch: clear, sunny, crisp, and bracing. At Bulawayo we joined the "Zambezi Express," and proceeded leisurely through clouds of dust down to the great bridge over the Victoria Falls.

At the Falls there is a small settlement and a comfortable hotel. Much has been done to attract visitors. The undergrowth has been cleared away round the hotel, leaving the original forest trees. The railway line, on approaching the bridge, runs along a spur jutting out into the chasm, and the view even from the train is striking; but one needs to wander along the edge of the clean-cut abyss to appreciate this wonderful and unique work of Nature. The sight from the rock facing the thundering waters is stupendous. On our return journey, we visited the principal points of interest round the Falls station, and made a trip in a motor launch up the river above the Falls which is here very wide and in parts shallow.

When one sees this vast water-power running to waste, the thought naturally occurs that it should be utilised at the Wankie coalfields¹—only some seventy miles away and over five hundred feet lower

¹ The Wankie coal area is extensive: perhaps, three hundred and fifty square miles. The seam being worked varies between

—and beyond. It is true that a power company, which had, as its original object, the utilisation of the Falls, was formed, with large undertakings on the Rand; but no use, as yet, has been made of this source of power. It should be quite easy to utilise this power without in any way spoiling the natural beauty of the Falls by the erection of unsightly buildings close to them.

From the bridge, a run of six miles brought us to the town of Livingstone—now the Government headquarters of Northern Rhodesia. Livingstone is a growing settlement, well laid out, and with plenty of shade trees. Some of the gardens, full of sub-tropical plants and flowers, are charming.

Beyond the township, the line rises considerably, passing through bush, with a poor sandy soil; but towards Kalomo are large grass flats, where we saw some herds of game. A few European farmers are settled in this district, growing maize, cotton, and tobacco; and we were told that they were doing well. We could not, however, fail to be impressed, on our journey through Northern Rhodesia, by the immense area of country more or less suitable to European settlement, but still undeveloped.

six feet and ten feet in thickness, and is very regular. The coal is used for all purposes throughout Rhodesia, but its quality is poor as compared with our own. Coke also is made for the northern copper mines, as well as fire-bricks and ordinary bricks of good quality. Fine building-stone is accessible; and the mine has good prospects of successful development. Most of the native workers come from North-East Rhodesia and Nyasaland—mostly as “volunteers.” The compound and native arrangements are good.

Beyond Livingstone to the Batonga plateau, the line reaches and continues along high country (three thousand to four thousand feet). At Sakania station, on the border of the Belgian Congo, we joined the Katanga Railway; and a run of about one hundred and sixty miles brought us to Elizabethville, the "capital" of Katanga.

At Elizabethville the Belgians settled the question of town-planning in their own way: they laid out the town in anticipation of the good times to come, rather than wait upon the normal development of the country. Even with a population of fifteen hundred souls, when we were there, the town appeared to be before its time: but it is the headquarters of the administration in "Haut Katanga." A number of good brick houses had been built, and many were in course of erection; whilst the town was laid out with broad streets and boulevards.

The Vice-Governor-General, Colonel Malfeyt, was kind enough to give us a letter of recommendation to officials of the Congo State in the Tanganyika region, and also general permits to shoot, should we enter Belgian territory farther north; so we resolved to take advantage of this opportunity.

After leaving Elizabethville, we returned by rail to Beira.

The trip to Katanga was of special interest to me, because I had visited the country in 1892, before the partition of Africa was completed, and before the ownership of the southern part of the Belgian Congo was definitely settled. I remember bringing home

samples of rich malachite ore and native smelted copper, with no ulterior motives. But, in any case, M'shidi, the "king" of Katanga in those days, was unwilling to make treaties with Europeans. Subsequently, however, he was visited by the expedition under Captain Stairs, sent out by the late King of the Belgians, and was killed in the fighting that happened by the way.

The future value of the Katanga copper belt would be immensely increased if good coal were discovered in that region. At the same time, schemes for the utilisation of water-power are being actively investigated. Of the vast extent of the ore deposits at Kambove, and at other places in Katanga, there is no question; and there is also little doubt that, in spite of their situation in the middle of South Central Africa—a thousand miles from the Coast—the means of profitable development have been gradually worked out. During the last three years the output of copper from Katanga has increased very considerably.¹ The mines have been actively worked; and it is quite probable that, given favourable conditions in the future, the country will be one of the leading sources of copper in the world.

One of the main problems of development is, of course, that of transport. There are three possible lines of communication with the Coast: (1) by the

¹ The present (November, 1917) production is at the rate of about thirty thousand tons per annum, with five furnaces; and the total output of the mines and smelters, up to date, amounts to about eighty thousand metric tons, valued at about eight millions sterling.

Rhodesian and South African Railways to Cape Town, or some other port in South Africa; (2) by the Katanga and Rhodesian Railways to Beira; and (3) a direct line along the Congo-Zambezi watershed to Lobito Bay, in Portuguese West Africa, a portion of which (from the Coast to Bihe) has been constructed. The best route, at present, is that to Beira.

CHAPTER III

OVERLAND TO THE ZAMBEZI

On the march—Through Portuguese territory—Some shooting on the way—Sugar plantations—The question of communications—Bridging of the Zambezi.

AFTER a few days in Beira, arranging our affairs, we repacked the baggage, camp-gear, provisions, and all the impedimenta required on an African *safari* (journey), for our overland expedition to the Zambezi, Nyasaland, and the Great Lakes. We had sixty loads of our own and twenty loads of native food. Including gun-boys, personal boys, and twenty-four *machila* (hammock) men, our followers numbered one hundred and twenty.

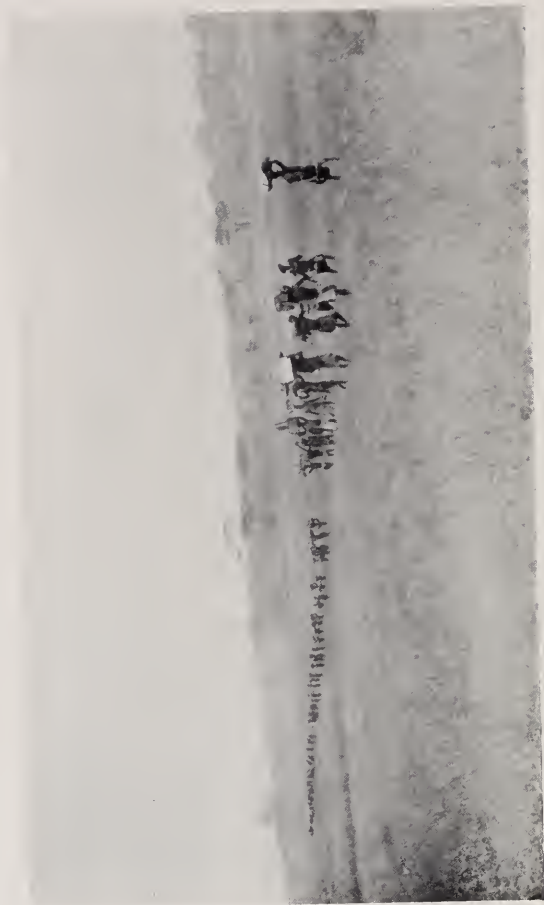
The first day of *safari* is a great joy. Although nearly everything goes wrong in the beginning—porters unaccustomed to their loads, personal boys new to their duties, and nothing in proper working order—one realises the delight of a return to the wild life of Africa. It is a pleasure to get on the march again, to form the first camp, to unpack the new camp furniture, to get the kitchen arrangements into working order, to have one's first meal and the first look round after game. The longer one has

been in England, the more one enjoys a return to the wild.

We found the Portuguese natives were fair carriers, and the *machila* men were extremely good in their stride. A short distance from our first camp brought us to the Pungwe River. The river, although barely navigable at the point we crossed it, was a fine stream carrying clear water. Eight miles farther, we reached a stream, the Usikadzi (or Chakaji), where there is a good camping site, situated on the margin of a vast plain—called by the natives *ntando*—which was dry at the time. Here we found wildebeeste, zebra, and waterbuck; and shot enough to provide a plentiful supply of meat for all our men.

The amount of meat consumable by African natives is prodigious. As soon as the first beasts are shot, on an expedition, the men simply gorge themselves; and this excess upsets them, until they become accustomed to the change of diet. I have seen natives in Nyasaland, not content with eating all they could swallow in camp, but marching on their day's journey with a large lump of half-cooked meat hung round their necks by a string, at which they munched whenever a brief halt occurred.

The greater part of the country between the Gorongosa and Cheringoma mountains consists of flats—either wet or dry, according to the seasons—which are covered with game: mostly wildebeeste, waterbuck, and zebra. We counted over four hundred zebra in a single herd. One soon gets



"SAFARI" ON OPEN GRASS-LAND, MOZAMBIQUE TERRITORIES.

bored, however, with open-plain shooting; there is no stalking, in the absence of cover, and shooting at comparatively long ranges becomes wearisome.

We had a long trek to the Portuguese station, Villa Paiva d'Andrade, on the lower slopes of Gorongoza mountain. The station is a thousand feet above sea-level, and in the cool season the climate is very pleasant. There must be some good country on the slopes and plateaux of the Gorongoza *massif*, which reaches an elevation of four thousand feet: but nobody thereabouts seemed to know anything about the higher levels. Portuguese officials camp at native villages. We realised this when our native carriers usually managed to bring us into camp at a village: and I missed the pleasant camping grounds of Nyasaland, in the bush—away from the noise, dirt, and effluvia of native settlements.

The men had plenty of meat, and consequently were happy. Dancing and drumming went on night and day.

In five days we travelled from the Nhanduli stream to the Kufra River through pleasant country holding a fair variety of game. Our route took us east of Muche to the Nyampaze River, which we crossed. In the vast thickets, north of the river, we came across recent tracks of elephants; and we were told that the "Inyala" antelope is to be found there; but in such a sanctuary for game we were not surprised to encounter none. At Juchenje village we were able to replenish our stock of native flour,

which, with our shooting for the pot, helped to keep the carriers going. In the immediate district a few elephants came occasionally at night to drink at pools in the Nyampaze stream, retiring during the day to the dense thickets: these beasts, I reckoned, must have travelled twenty to thirty miles in the twenty-four hours. We generally managed to supply our own larder with a bush-buck or duiker, and now and then a guinea-fowl; but this was no help towards feeding our large caravan, with supplies running low.

The Mukwa River, which we crossed, would appear to be the upper Zangwe. According to native information it flows into the Zambezi, becoming the Zangwe lower down in its course; and it reaches the Zambezi near its junction with the Shire (pronounced Shīray). At the point we crossed it, the stream, rather deep and weed-grown, was sixty feet wide. We followed along the open grass flats that run parallel with the river a mile or so distant from its banks. The Mukwa and Zangwe flats are very extensive. All the game in these parts drink at the Mukwa; and the flats are covered with water-buck and zebra. In the deeper pools there are hippos; their tunnels ran through the scrub and thick undergrowth at the water's edge.

There was a great gathering of natives to secure the meat of a hippo we shot. Scores of them were soon busy cutting it up. The noise and the stench were awful. The blood and refuse in the water attracted mud-fish—mostly, about three pounds in

weight—which the small boys landed as fast as they could bait their lines.

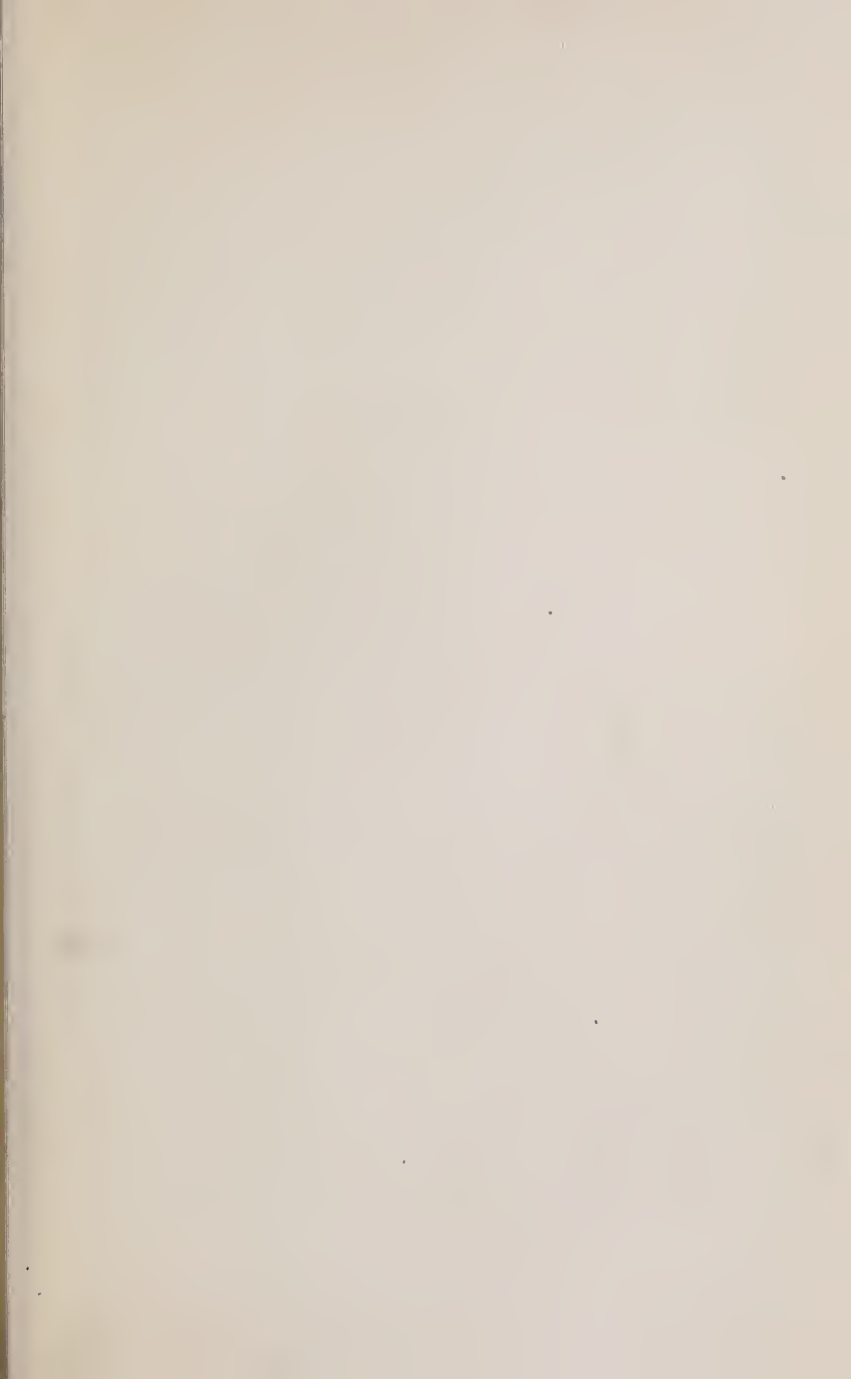
We at length reached signs of civilisation at a village near the Zangwe, eight miles from the Zambezi, where we found the land being cleared for sugar and steam-ploughs at work, for the Chimbwe sugar mill. The Zambezi Sugar Company's mill at Chimbwe, which is situated close to Villa Fontes—an administrative centre on the Zambezi—turns out eight to ten thousand tons of sugar in the year. The same Company has another mill at Mopea, on the left bank of the river, twelve miles lower down; and a third at Maroméu, on the right bank, nearer to Chinde. They employ eighty Europeans and four thousand natives; whilst their mills, especially at Chimbwe, are quite up to date. The sugar is transported in barges to Chinde, and thence by sea to Beira and Europe. When the Beira-Zambezi railway is built, a considerable portion of the output will go direct by rail from Chimbwe, if it become the junction, to Beira. The Company, at the time of my visit, had a semi-permanent railway of about twenty miles to deal with the transport of cane, sugar, and stores, on which only locomotives are used; in the fields they had also a portable line for trucks drawn by oxen.

At Chimbwe we found the stern-wheel steamer *Centipede*, belonging to the British Central Africa Company, waiting for us; and we soon got all our belongings on board. We were not sorry to be rid of our carriers and boys. These "Chikunda"

people, as they are called, are more "town boys" than bush travellers, and have little or no sporting instinct.

At the junction of the Zambezi and Shire, we steamed up the latter to the point known as Villa Bocage, and entered the Morambala marsh—the remains of an ancient lake. Held up by shallow water, we then had to send off a small barge upstream, loaded with our goods and most of the baggage; and we ourselves followed in a so-called "house-boat": i.e., an open boat, about twenty-four feet long, with a temporary shelter aft made of reed and grasses.

The extension of the Nyasaland Railway southwards from Port Herald—"the port of entry" for the Protectorate—to Chindio (completed since our visit) has done away with the tedious boat journey of three or four days which, formerly, one was compelled to make from the highest point of steamer navigation on the Shire to the railway at Port Herald. It certainly was a comfortless trip. The passenger was put on board his houseboat, with his blankets or sleeping-gear, some baggage, and a box of provisions. He had to live and sleep in the boat; and, although for seasoned travellers that was no great hardship, for those who were inexperienced—especially ladies—it was very disagreeable. The boats were either paddled or poled, according to the depth of the water. River boys work best when they sing: they have a selection of boat songs, some with a modicum of melody, others merely monotonous.





(1) SHIRÉ RIVER AND MORUMBALA MOUNTAIN.

(2) AT KATUNGA, SHIRÉ RIVER.

After passing the Ziwe-Ziwe and Njessi creeks, emptying into the Shire, there is one very shallow place where even small barges have trouble; but above that spot there is a long stretch of comparatively open waterway for small craft. The Shire River, however, has steadily deteriorated for purposes of navigation during the last twelve or fifteen years; and the railway extension from Port Herald to Chindio was badly wanted. Development in Nyasaland had suffered, and is still suffering in a lesser degree, from want of means of direct transport to the Coast.

The whole of the land through which the river runs between Villa Bocage and a point a little below Port Herald is marsh: dry in the dry season, and impassable during the rains. There are, however, along the banks many native huts built on piles, the floor of the dwelling itself being six to eight feet above the ground. Natives like the river because of the large number of fish they get there; these they dry in the sun and sell in other districts.

When the proposed railway is constructed from Beira to the Zambezi, it will be carried to some point on the south bank of the river, more or less opposite Chindio—the present terminus on the north bank of the Nyasaland Railway—and the Zambezi eventually will be crossed by a bridge to connect the two lines. One of the objects of our visit was to look into this matter and to arrive at an opinion as to the best alternative sites for the bridging of the river. The bridge, no doubt, will be a big undertaking;

but there are no great engineering difficulties to overcome. A suitable site may be found either near Chindio, or at a rocky point on the north side of the river called Mutturara, above the junction of the Zambezi with the Ziwe-Ziwe creek, where a line of low hills jutting out on the left bank of the Zambezi to the water's edge gives a firm, rocky, permanent bank. The total flood-width of the Zambezi at either of these suggested crossings is over two miles.

CHAPTER IV

NYASALAND

Port Herald—The Shire Highlands—Blantyre—Historical retrospect—Frustrated German invasion—Native characteristics—European settlement—Cotton plantations—Native cultivation—Products of the Protectorate—The Question of Labour—Migration—Permanent European population—Climate—Transport—Railway projects—Zomba—The *tsetse* fly controversy—Opinion of experts—Major Cuthbert Christy's views—Siltling of the Shire River—Fort Johnston—The Scottish Missions—Nkata.

WE left Port Herald by rail for Blantyre, accompanied by the railway superintendent and by the manager of the British Central Africa Company.

The journey to the Shire Highlands is interesting. The first thirty miles is through low, level country, bordered by excellent cotton lands which, under irrigation, can be opened up extensively to cultivation. The railway follows the course of the Shire River, and, at the confluence of the Ruo, passes over a long iron bridge to Chiromo. It then follows the Ruo to its junction with the Tuchila, some fifteen hundred feet higher, past the Zoa Falls, which some day may be utilised for power-supply. The line then ascends, at first gradually, until it reaches its highest elevation (four thousand feet above sea-level)

at Limbe. Thence down to Blantyre there is a drop of seven hundred feet.

The country all along the railway is under cotton and tobacco. Seldom is one out of sight of European farms and plantations.

Blantyre is the commercial centre of the Nyasaland Protectorate. Here are established the head offices and stores of various trading companies and business concerns: in particular, the African Lakes Corporation, the British Central Africa Company, and a branch of the Standard Bank of South Africa.

The history of Nyasaland is full of interest. Our knowledge of the country may be said to begin with Livingstone, who directed attention to the Shire Highlands as a district suitable to European colonisation. The first step was—as in some other parts of Africa—the advent of missions: the Scottish Churches and the English Universities. After the missionaries came the traders. The most notable bands of merchant adventurers were the African Lakes Corporation, who now have branches throughout Nyasaland as well as in Northern Rhodesia, and the British Central Africa Company. Native life was profoundly stirred by the introduction of the alien element of commercial enterprise. There followed wars with the Arab taskmasters, whose preserves were invaded, until, finally, the British Government intervened and established order. A Protectorate was proclaimed in 1892. Sir Harry (then Mr) Johnston became the first Commissioner of Nyasaland—or British Central Africa, as it then

was called—and shortly after his retirement in 1896 I was appointed to succeed him.

On Sir Harry Johnston's arrival, he found the country in a state of chaos. The hand of every native chief was raised against his neighbour. In the northern parts of Nyasaland all were engaged in fighting their common enemy—the Arabs—who were endeavouring to establish themselves on the shores of Lake Nyasa. From 1887 to 1897 we had almost incessant fighting: first with the intruding Arabs, afterwards with some of the more powerful native chiefs, and, finally, with the Angoni—a Zulu tribe, of South African origin.

Karonga, at the north end of Nyasa, was the scene of the earliest, as well as the latest, fighting in Nyasaland. This station has withstood two attacks: the first, in 1887, when it was besieged by Arabs under the chief, " Mlosi "; the second, in 1914, when the Germans made a strong effort to invade Nyasaland from German East Africa. On the first occasion, the Arabs had occupied a section of the Konde country, at the north end of Lake Nyasa, had built four strongly stockaded towns, and intended to overrun the districts lying north and west of the Lake. Karonga was defended by a small party of Europeans—African Lakes Corporation employees and volunteers (including myself) under the command of the late Consul O'Neill—and some natives armed with a variety of guns, from elephant rifles to flintlock muskets. Our party held a small fort surrounded by a low brick wall, with a shallow ditch

outside filled with thorn branches; inside were shallow communication trenches. The Arabs, five hundred strong, besieged us for five days, firing from log stockades, two hundred yards distant, which they built up and repaired during night time. They had a number of killed and wounded, our losses being small; and we were finally relieved by a force of some five thousand Wakonde spearmen, who came down to our assistance from the extreme north end of Nyasa. The Arabs eventually were defeated and scattered.

At the end of 1914, a German force from Neu-Langenburg, consisting of nineteen European officers and five or six hundred Askari (native soldiers) with machine guns and quick-firers, attacked Karonga. Our force had left the station that morning to look for the Germans; and the two parties passed, unknown to each other, in the bush. Consequently, when the enemy reached Karonga, it was held only by a small force, consisting mostly of volunteers. These made a gallant defence, and, in spite of many casualties, held out until they were relieved by our regulars, who, hearing the firing behind them, returned hot-foot and attacked the Germans in their rear. The enemy, badly beaten, lost a large number of their Askari and most of their guns; whilst, out of the nineteen European officers, fourteen were killed or wounded. Thus ended, ingloriously, the German attempt to invade Nyasaland. The fighting towards the end of the war near the Lake was a fugitive affair.

At the present time, Nyasaland is in a most satisfactory condition. There have been no native wars and but few disturbances for many years past; whilst the people are contented and satisfied with British rule. They have reason to be. They pay a very moderate hut-tax: eight shillings a year, which is reduced to four shillings if the hut-owner works, as a paid hand, for a European within the Protectorate during one month in the year. There are, of course, a variety of tribes with distinctive characteristics; but, on the whole, they are an excellent lot, anxious to fulfil their obligations and on the best of terms with European officials and settlers. The Protectorate, moreover, is free from any native liquor question, as it is contrary to law to supply natives with alcohol, and, with few exceptions, they have acquired no taste for European spirits.

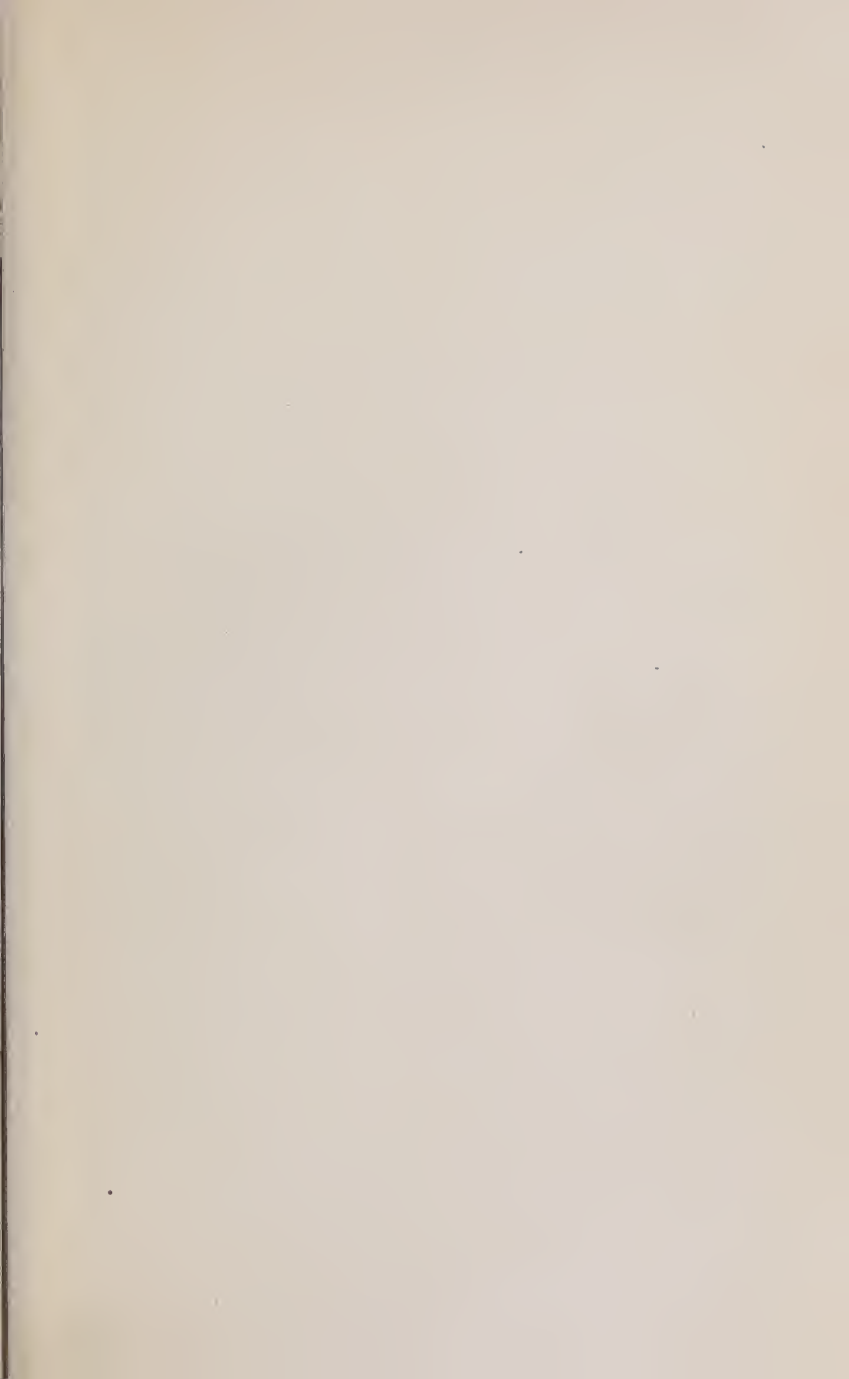
As settlement in the Protectorate advanced, Europeans increased their planting enterprises. The first crop to be cultivated was coffee—the offspring, it is said, of a single plant from Edinburgh—and this industry increased rapidly, yielding a profitable return until the great fall in prices set in some years ago. Coffee is still under cultivation; but settlers now go in for cotton and tobacco, both being more profitable crops.

The cotton grown in the highlands of the Protectorate is an improved variety of “American Upland”; and in the Home market it fetches about twopence a pound more than “Middling American.” At anything like normal prices, Nyasaland cotton

gives very fair profits. The planters are doing well, accordingly. Most of those who first took up land were men with small capital, thus being dependent in some measure on the early success of their ventures. Capital still is required; and its investment in the Protectorate may be regarded as good and sound.

One of the most interesting developments of cotton planting in Nyasaland has been the participation of natives in the industry. This somewhat unusual co-operation opens up wider possibilities in the direction of large exports than cultivation by Europeans alone, since, if every native who lives in a country suitable for the growth of cotton puts in a patch of an acre round his hut, the total output would be immeasurably increased.

In addition to private ginneries, the British Cotton Growing Association has erected factories to deal with native-grown cotton at Port Herald, Chiromo, and in other districts; and this support to the industry has had an excellent effect in encouraging native agriculture. Native-grown cotton was at first bought by European planters and traders at an all-round price of one penny per pound, in the seed, which is equivalent to about threepence half-penny per pound for the lint. The recent advance in cotton values affords room for increase in the price paid to the native grower; but it is inadvisable to raise the standard price too high, lest a fall in the market value of cotton should necessitate a corresponding reduction in the price paid to natives. Once a native





A YAO WOMAN, NYASALAND

has received a definite price for an article, he is unable to understand the need for any reduction, though possibly, like other people, he would not refuse a better offer. It should be quite practicable, however, to establish a sliding scale, by which purchasers would return a bonus each year on a certain proportion of their unexpected profit, if any: and this understanding would more effectually encourage native agriculture than any inducement that Government could offer.

The initial difficulties in encouraging the natives of Nyasaland to take up cotton planting on a commercial scale were considerable. Conservative as they are, in all their habits of mind and by tribal tradition, they were hard to persuade. Government made every effort to support native cotton cultivation. District magistrates supplied the chiefs and people with seed, assisted them in the cultivation, and found purchasers for their crops. It was uphill work at first; but now that the industry is established, running is smooth, and excellent prospects are opening up in the southern districts. Many of the better educated natives have bought blocks of freehold land, from ten to two hundred acres in extent, on which they plant cotton, coffee, or tobacco, in addition to grain crops. Natives of this class often have good brick-built houses and live in a semi-European style.

Among other products of the Protectorate are tea, chillies, fibre, and rubber. On the eastern side of the Mlanje mountains there must be quite twenty

thousand acres of land suitable for tea plantations. *Ceara* rubber does well throughout East Africa; but *Pará* requires, perhaps, a damper and hotter climate. Although a hardy tree, the rubber from *Ceara* costs more to produce than from *Pará*. It has been calculated that *Ceara* rubber in Nyasaland costs nearly three shillings and sixpence a pound to place on the Home market.

Some years ago the Imperial Tobacco Syndicate erected a factory near Blantyre; and I believe they are well satisfied with the results. They purchase most of their tobacco from planters, but intend, I understand, to go in for a certain amount of cultivation on their own account. Of course, cultivation on a commercial scale involves a steady and reliable supply of native labour: and that opens up a vital question of policy.

The Native Labour question in Nyasaland always has been a somewhat difficult problem. The population of the Protectorate is comparatively large, as, although the country is of no great extent, it is more densely populated than any other part of the southern half of Africa, and, out of perhaps over one million natives, probably about two hundred thousand are willing every year to undertake a few months' labour for Europeans either on plantations and in mines, or in transport. The European planters and employers of labour in Nyasaland, naturally, always have been averse to a large exodus of natives of the Protectorate to other territories, in search of work, being themselves anxious to con-

serve the local supply. It is, however, questionable whether, after a native under British protection has paid his taxes and carried out all Government requirements for the support of his family, he should be forbidden, or in any way practically prevented, from selling his labour in what he may consider to be the best market.

What always has appeared to me the best method of regulating the temporary migration of Nyasaland natives to other parts of Africa is to decide arbitrarily upon a definite number who shall be allowed to go annually to some other British territory for work, to limit the term of such employment to twelve months, and, by direct communication with the Governments of the territories concerned, to provide for their good treatment, proper housing, rate of pay, postponement of a considerable proportion of their pay until they return to their own homes, and proper transport there and back. It is, I think, better to regulate the transfer of labour in this manner rather than to ignore the question altogether or to attempt actively to prevent any migration at all. It would be better to regulate the employment of Nyasaland natives, limit its extent, control it, and ensure that the natives themselves are adequately supervised and protected than to leave the whole affair to chance. The Protectorate thus would know exactly what proportion of available labour it would be likely to lose annually. At present, while unlimited numbers of natives find their own way south, many of them do not return for years, and

there is no longer any direct control by the Government of Nyasaland over the conditions of their employment.

The permanent European population of Nyasaland numbers less than a thousand souls. For a tropical colony, the climate in which most of these people reside may be regarded as favourable. For five months in the year it is healthy and very pleasant; for another two months it is hot but not unpleasant; and for the remaining five months—i.e., the rainy season—it is wet, hot, and rather disagreeable.

Nyasaland does not come within the exact definition of a "colony of settlement"; that is to say, it could not be colonised to the same extent as New Zealand or Australia. Experience shows that children of white parentage require to be sent away when they are five or six years of age; otherwise, they deteriorate. No doubt, a white race indigenous to the country might be brought up without having to leave it; but, in two or three generations, deterioration would most certainly set in. Nothing is more sure than that climate determines the efficiency of a race. At the same time, the standard of living being steadily raised, as it has been of recent years, there is no reason why Europeans in Nyasaland who are fixed in definite stations should not bring out their wives: in fact, white women seem to enjoy better health than the men and to suffer less from fever.

The Protectorate is fairly well provided with roads, which are of four classes: (1) Macadamised

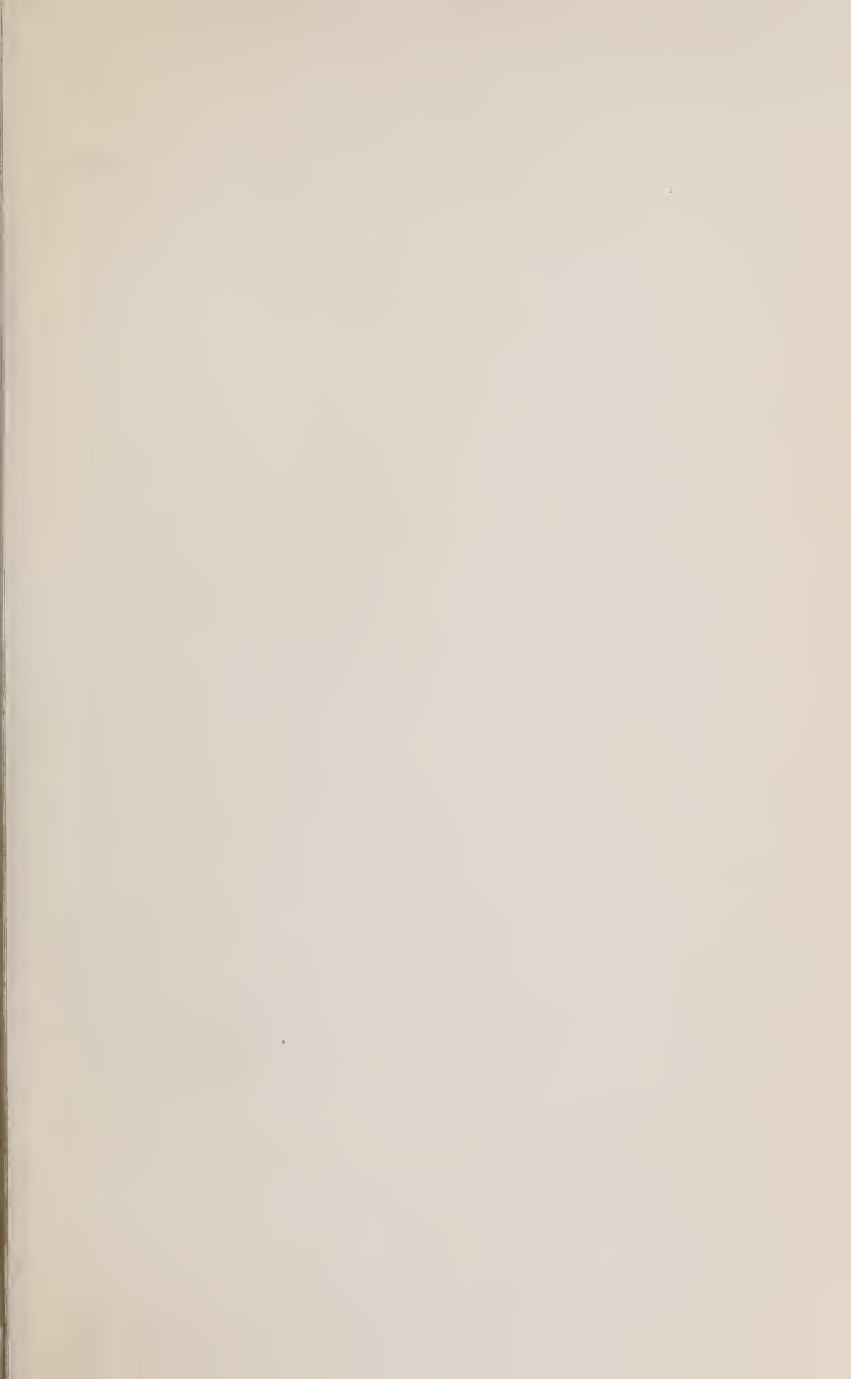
roads, suitable for any description of traffic, such as the road from Blantyre to Zomba, along which we motored; (2) wide, earth roads, quite good for all traffic during the dry season, but difficult for heavy wheeled vehicles during the rains; (3) narrow, cleaned tracks—what may be called bicycle or “rickshaw roads”—with fairly easy gradients; and (4) ordinary native paths—district cleared tracks—with the vegetation on either side cut down.

In 1912 there were not more than a dozen motor-cars in the Protectorate, and perhaps two hundred and fifty motor-cycles. When war broke out, however, urgent demands for the transport of troops and of large quantities of military material through Nyasaland threw a vast amount of work on the Public Works Department, one result of which has been great improvement in the main road from the terminus of the railway at Blantyre to Fort Johnston, at the south end of Lake Nyasa. Fleets of cars—mostly Fords and Hupmobiles—were imported, and motor lorries were used extensively. Thus, the transport officers have succeeded in making better use than could have been anticipated, not only of the main road, for motor traffic, but also of the difficult road from the north end of Lake Nyasa to the south end of Lake Tanganyika. The admirable way in which the transport for General Northey’s column, operating in the south-western portions of German East Africa, was carried out by the Government of Nyasaland and its various departments

reflected the highest credit on the Protectorate. At the same time, the northern Government stations in Nyasaland and North-Eastern Rhodesia kept up a constant supply, amounting to thousands of tons, of grain for the native troops.

The extension northwards of the Nyasaland Railway, which has been projected for some time past, will run probably from Blantyre to the vicinity of Zomba, thence descending to the Upper Shire River and across it. It then will follow the west bank of the river to the neighbourhood of Fort Johnston (near the south end of Lake Nyasa), and will reach the Lake at a place where a good harbour has been found.¹ There is a very good site and anchorage at the south-east corner of the Lake; but it is probable that the railway will keep to the west bank of the Shire and Lake Nyasa. From some point on this northern extension—possibly, at Liwonde—a branch railway eventually will be constructed, through Angoniland to Fort Jameson, in Northern Rhodesia. The extension northwards of the railway to Lake Nyasa and the construction of the Beira-Zambezi Railway will thus complete a line of rail and water transport from the East Coast to the north end of Lake Nyasa, covering a distance of, approximately, nine hundred miles. It will open up the rich districts surrounding Nyasa, and, in particular, the fine “Konde country” bordering the north end of the Lake. We may even look farther and see a railway

¹ An alternative route is to keep to the east of Zomba and the Shire River the whole way to Lake Nyasa.





MIANJE MOUNTAIN AND CEDAR FOREST, NYASALAND.

replacing the Stevenson road across the Nyasa-Tanganyika plateau, the crest of which forms the watershed of the Congo. This line, if built, connecting the two lakes, would be some two hundred and thirty miles in length, and would open up another four hundred miles of deep-water transport on Tanganyika.

The settlement of Zomba (headquarters of the Government) is picturesquely situated on the lower slopes of the Zomba mountain. The view, which it faces, to the east is one that never fails to attract. One's outlook is over the Zomba-Mlanje plains, extending for forty miles to the *massif* of Mlanje Mountain, which reaches an altitude of nearly ten thousand feet. In the rainy season the air is so clear that one can distinguish the trees on the top of the mountain, whilst other peaks in Portuguese territory, sixty or seventy miles away, can be seen clearly. Immediately behind the town, Zomba Mountain rises in precipitous slopes, on its eastern side; and this sheer ascent of some eighteen hundred feet can be climbed only at one or two places. The lip of the upper plateau is then reached; and here one enters a beautiful, undulating country, about twenty thousand acres in area, covered with short grass, with wood "kloofs" that harbour bushbuck: a country, reminding one of Yorkshire moors rather than characteristic of Central Africa. The people of Zomba have built on this upper plateau a number of bungalows; and, during the hot season, most of the settlement migrate "upstairs" for the week-end.

An excellent road, zig-zagging up the side of the mountain at an average gradient of about one-in-fifteen, and about five miles in length, leads to the upper plateau, which, itself, is traversed in all directions by well-made paths.

From Zomba we motored to Liwonde, on the Upper Shire River, and then to Fort Johnston. During the last six or eight years the Upper Shire has been blocked with *sudd*—masses of weeds and tangled vegetation which obstruct the channel. A waterway was, with much trouble and at considerable cost, kept open in order to facilitate the passage of boats and barges from Liwonde to Fort Johnston, and on to Lake Nyasa; but the difficulties of transport are now great.¹ To develop the northern parts of Nyasaland, it will be essential to carry out the extension (to which I have referred) of the railway northwards from Blantyre to Lake Nyasa. Between Liwonde and Fort Johnston, *tsetse* fly is rampant at certain periods of the year; and this zone should be rapidly traversed.

The connection, if any, between big game and *tsetse* fly is a question regarding which much has been written and on which there is a conflict of opinion. There are varieties of *tsetse*; but the two best known are the *Glossina morsitans* and the

¹ Fort Johnston is situated, not on the Lake-shore, but on the Shire, some three miles below its outlet from Nyasa. The condition of the river is yearly becoming worse; and it is only by keeping open a shallow channel in the sand that boats and small barges can pass between the Lake and the river. If the fall of the Lake continues, the exit will soon close up permanently.

Glossina palpalis: both virulent pests. *G. morsitans* is the carrier of the *tsetse* fly disease, or "Nagana," and is fatal to cattle, horses, and most domestic animals. Formerly, it was not held to be harmful to human beings; but it has been found, I believe, to convey the germs of the Nyasaland or "Rhodesian" type of sleeping sickness. *G. palpalis* is held to be responsible for spreading the Uganda form of sleeping sickness. The latter (*G. palpalis*) is, in a measure, easier to control than the former, being found only near water and in forest, scrub or undergrowth.

So far as *G. palpalis* is concerned, one can camp with perfect safety on open ground; and, even if only a hundred yards from the edge of scrub, no fly will come outside. *G. morsitans*, on the other hand, is not necessarily found near water, and is much more widely distributed throughout South Central Africa. Although frequenting typical country, where a certain amount of shade is requisite, it is not altogether confined to such country: it may be found, for instance, as far away as a mile or two from the borders of afforested land.

Careful investigations have been made with the object of ascertaining whether *tsetse* fly—in particular, *G. morsitans*—be dependent on wild game for its host; and whether, with the removal of wild game, the *tsetse* would disappear. I can speak only from practical experience, as a layman; but the conclusion I have come to, after twenty years spent in Nyasaland and neighbouring territories, is that there is

little or no connection between the occurrence of *tsetse* and big game in association, and that the extermination of big game would have no more effect on the existence of *tsetse* than the slaughter of domestic cattle would have on the extermination of common flies. My investigations convince me that, in Tropical Africa, certain districts are subject to conditions that account for the prevalence of *tsetse*: whenever such conditions occur, *tsetse* will be found there, irrespective of any connection with big game. What those conditions are, precisely, we do not know. In Nyasaland, *tsetse* are never, I believe, found above three thousand five hundred feet—indeed, seldom above two thousand five hundred feet—and this question of height above sea-level applies to a great extent also to the distribution of malaria. In a so-called *tsetse* district, it does not follow that fly will be met everywhere, at all seasons and on all days: although, in the case of Nyasaland, one can map almost the exact limits of such districts. It is, in fact, possible to pass through *tsetse* zones without encountering any fly, on some days and at certain periods of the year; at other times it may be found otherwise.

There is, perhaps, no question in Africa regarding which greater ignorance is displayed or baseless views advocated than that of *tsetse*. People who never have seen *tsetse* will tell you all about them. Others, with slight knowledge or experience, will assert that they are “spreading.” So far as Nyasaland is concerned, I do not believe there is any

increase or diminution in the distribution of fly: the "fly districts" remain very much the same as they were when I first entered the country, thirty years ago.

My views regarding *tsetse* do not lack support by competent authorities. Professor Minchin has stated that, so far as *Glossina palpalis* is concerned, he considers its existence does not depend on big game. Dr Balfour, the director of the Wellcome Research Laboratories at Khartoum, in his examination of blood-smears from several species of big game (including elephants, buffaloes, many antelopes, and waterbuck), found in none of them parasites or any pathological conditions, in spite of the fact that all the blood-smears under examination had been collected in a region infested with *tsetse*. Captain Best, R.A.M.C., in blood-smears obtained from buffaloes, hartebeeste, waterbuck, monkeys, puff-adders, and other examples, found no trypanosomes, although in the blood of native ponies he found some. Major Stevenson-Hamilton, formerly of the Sabi Game Reserve, who lived for years in the Reserves, and is well known as a keen naturalist, stated, in a letter which was quoted in *The Field* (21st November, 1908), that his experiences at the Sabi and in Portuguese Nyasaland leads him to the opinion that nothing would be gained, so far as the extermination of *tsetse* is concerned, by killing off big game, as there appeared to be no connection between the two. The late Mr Woosnam (who crossed Africa from east to west a few years ago and

made an interesting journey in N'gamiland) was for some years Game Warden in British East Africa; and he told me he was entirely of my opinion; his own observation confirmed the view that big game in Central Africa has little to do with the presence or absence of *tsetse*. Mr Maugham, formerly His Majesty's Consul at Delagoa Bay (more recently, Consul-General in Liberia and at Dakar), states that his travels in Africa—particularly, his journey through Portuguese Nyasaland—convinced him that big game are not responsible for the occurrence of *tsetse*.

Finally, as a conspectus of the whole subject, I submit, in spite of its length, the following memorandum, prepared for me by Major Cuthbert Christy, R.A.M.C., whose expert knowledge is based on an exceptional experience of Tropical Africa.

A "fly belt" (writes Major Christy) is not a region over which "fly"—that is, species of *Glossina* belonging to the *morsitans* group—is always to be found, but a district beyond which the fly is rarely to be met with. The fly is not uniformly distributed over this area. One may pass a belt and see not a single fly; yet a month afterwards one is tormented by the pest.

It is common knowledge that the fly migrates *en masse* from one part of the belt to another. Why it should always migrate within certain limits no one seems yet to have afforded a satisfactory explanation. The country beyond the fly belt is often identical in character and type of vegetation—so far as one can see—to that within it. Where a road passes through a belt and flies have followed animals or men beyond the confines of that belt, they invariably fly

back to it on giving up the chase. At least, if one returns along that road soon after they have left, not a fly is to be encountered until reaching the belt again.

Beyond these belts there is something inimical to the fly, some enemy known to the fly but not to us. There are instances, for example, in connection with the rinder pest epidemic which swept over part of Africa about 1896, where the enemy seems to have raided the fly-belt and gained the upper hand, causing the fly to disappear from the district never to return, but whether owing to death or migration is uncertain.

Within the belt the fly has two forms of migration. One is easy to explain. It is the annual movement—due to the burning of the bush in the dry season—to the streams, khors, wadis, and moist places, where shade may be found and shelter obtained from the fire and smoke. For two or three months each year all the flies in a fly-belt are to be found in such places and not in the burnt bush. To enter or pass through these sanctuaries after ten a.m. during this period is like fighting a swarm of fussy, angry bees. In the early morning one passes them with comparative impunity, if noise and disturbance be avoided.

Not until the first spring showers arrive, and the burnt and blackened bush begins to take on its normal green appearance again, do the flies leave their shelters for the open country.

The second form of migration is that which goes on throughout the rest of the year, and is far more difficult to understand. One month the flies are there, but the next they are gone to some other part of the belt. So much we know; but what is not yet certain, is whether the fly has definite months of migration—that is whether its local migrations take place at the same time each year or month, and what prompts them.

I am convinced that animals play a small, or no part, in the mystery. I have been "eaten up" by fly when after buffalo; yet, a week later, have found the same herd in the same place but not a fly with them; and, *vice versa*. I have found buffalo amongst swarms of fly, put them on the move, tracked them for miles, and come up with them, still in the fly belt, without a single fly in attendance as far as I could see. As a rule, buffalo move from one district to another at night or early morning when the fly cannot follow them. On several occasions I have found areas of country swarming with fly, but obviously with extremely few animals in it, large or small. The most conspicuous feature of such areas in the Upper Bahr-el-Ghazal is tall spear-grass.

In some districts in the Eastern Welle basin and in the Bahr-el-Ghazal, *Glossina morsitans* is to be found in millions. Some of these districts are inhabited; some, absolutely without inhabitants for many days' march; while in some, game is very scarce; in others, animals are to be seen in the open areas in hundreds. The presence or absence of game depends upon grazing facilities; but these have no relation to the presence or absence of fly, nor has the prevalence of sleeping sickness any relation to the number of flies (*morsitans*) or to the number of game in any given area or even to the presence of game at all, so far as these districts are concerned.

That wild animals may be a reservoir for the trypanosome of sleeping sickness is not unlikely; but to assume that they are the chief reservoir of the disease, because a trypanosome sometimes found in them cannot be distinguished microscopically from the trypanosome known to cause the disease in man, seems to me, knowing Central Africa and the natural history of its animals as I do, a most dangerous assumption. Even if they were proved to be the chief reservoir, no one who knows his Tropical Africa

would ever suggest in earnest the possibility of exterminating all wild animals in any part of it, except perhaps a desert, or the probability of the extirpation of the disease if they were all exterminated.

If, in speaking of wild animals or big game, the antelopes are referred to, then I, personally, am convinced that they play a quite negligible part, if any, in the transmission of disease to man. If, however, the subject be approached more cautiously and the life-history of each animal is studied, together with the daily life of the African native in a sleeping sickness area, it is possible to exclude almost with certainty most of the wild animals, and to point the finger of suspicion to just one or two. Of these, the pig, in my opinion, will be found to be the chief culprit: not only the common red river hog and the wart hog, but more especially the semi-domesticated pig frequently seen round about native villages.

In the reports of the Liverpool School of Tropical Medicine Sleeping Sickness Expedition to the Congo, as far back as 1904, the possibility of pigs being implicated in the transmission is mentioned. On several occasions, whilst travelling through the Cataract Region of the Lower Congo, Dr Dutton and myself, members of that Commission, had opportunities of noting that *Glossina palpalis* was frequently to be seen in the ears of the pigs, and was in that way carried considerable distances from the water. Since then the indictment against the pig has been strengthened from time to time, and very recently by additional work carried out in the Belgian Congo.

During my last journey in the Bahr-el-Ghazal and Congo, I attempted to collect evidence for or against the theory that wild animals were an important reservoir for sleeping sickness, by making a microscopic examination of the blood of each animal shot, as soon after death as possible. Out of one hundred and sixty animals, from giraffe, elephant, buffalo, to

duiker, pig, colobus monkey, etc., only five animals were found to have trypanosomes in their blood, and only one, a wart hog, out of all the number, had a species of trypanosome which, if it were not, could be mistaken for, the trypanosome of the disease in man. Three of the others were infected with a short, active trypanosome of the *pecorum* type, while in the fifth one long, thin trypanosome was observed.

From two to six live slides were taken from each animal. Dogs and monkeys were obtained for inoculation; but, owing to the impossibility of personally watching these after inoculation, results obtained from this source were discarded. The number of animals infected may in reality have been slightly higher, for it frequently happened that the slides could not be examined for some hours.

Other animals found infected were the waterbuck and bushbuck. Those most frequently examined were Jackson's hartebeeste and the Kobs (*Cobus Thomasi* and *Cobus Vaughni*). Special care was exercised in taking and examining the many buffalo slides, but on no occasion were trypanosomes found in any of them.

(Signed) CUTHBERT CHRISTY,

Major, R.A.M.C.

November 4th, 1917.

Thus, so far as Africa, north of the Zambezi, is concerned in this question of *tsetse*, I think most of those who have carried out reliable and comprehensive observations will be found to agree with my view, and would join me in protesting against any attempt at killing off big game with the idea of thereby exterminating *tsetse*, as is now being done in Zululand.

Another interesting problem of Nyasaland is the silting up of the Shire River. When I first visited

these parts, in 1887, the Shire was a fine deep river which spilled from the south end of Lake Nyasa and eventually joined the Zambezi. Steamers drawing six feet of water were able to navigate the Shire from the Lake to the head of the Murchison cataracts. From about the year 1890, however, the volume of water leaving Nyasa began to diminish; and when I was at the south end of the Lake in 1912, I found its overflow had practically ceased. At the present day, the upper portion is unnavigable at any season; and the lower course, instead of being available as a transport route all the year round, from the sea to the foothills of the Shire Highlands, can be used only for a few months of the year as far as the junction with the Ruu.

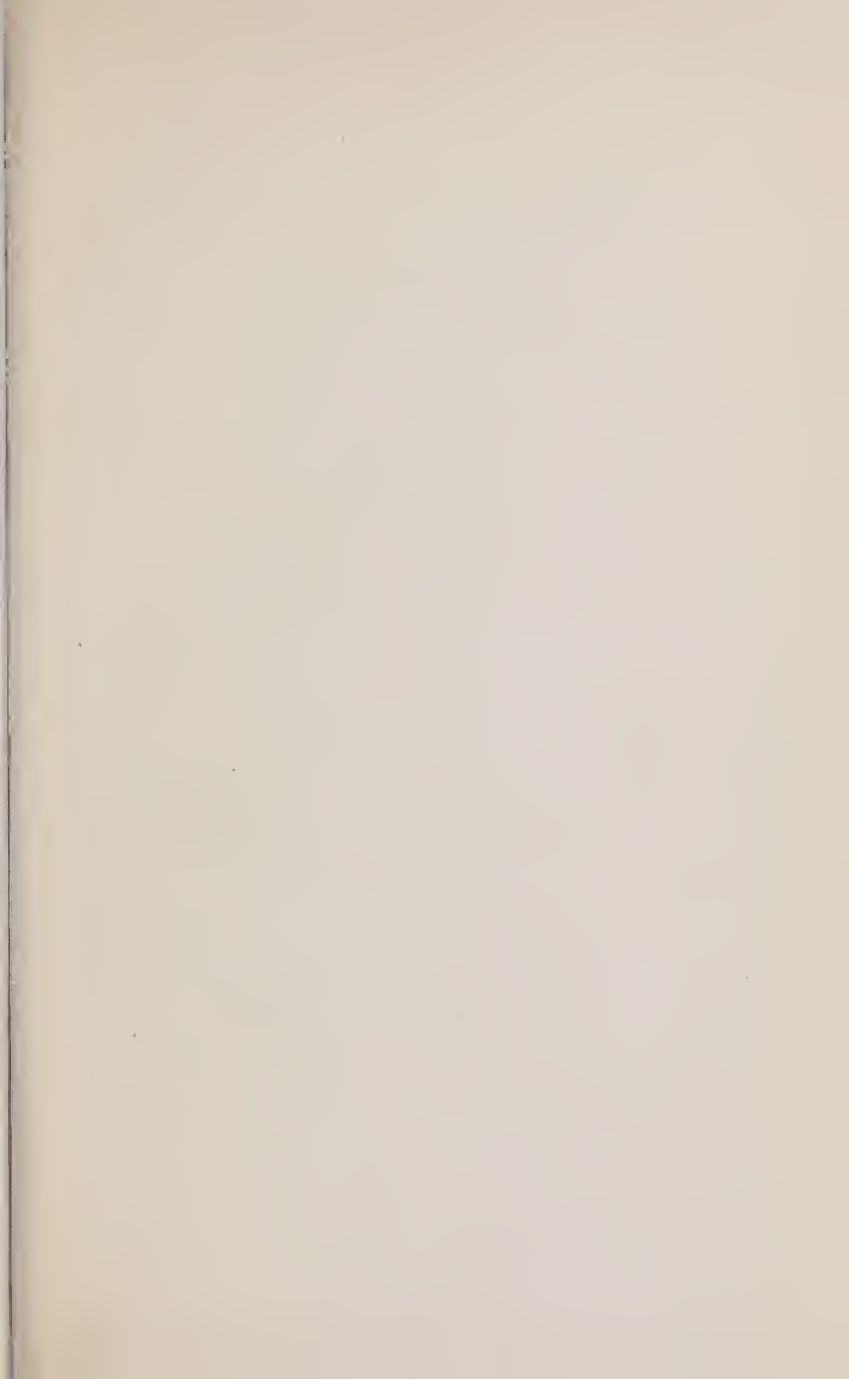
As to the fall in level of Lake Nyasa, resulting in a scanty and intermittent overflow into the Shire, it is difficult to assign any other cause than a decreased rainfall in the catchment basin; but observation and records at lake stations do not seem entirely to support this very natural assumption. A theory that to some extent may account for recurrent fluctuations of level suggests itself; and I advance it for what it may be worth.¹ One of the noticeable features of Nyasa is a series of ancient beaches, each one raised a few feet higher than the one below, which can be traced all round the shores. It is thus evident that, at various periods in the past *régime* of

¹ This was first given in my paper to the Royal Geographical Society, read on 4th December, 1911, and published in *The Geographical Journal* for January, 1912.

the Lake, the surface waters reached a higher level than at the present day. My impression, then, is that, through ages past, the Lake has from time to time closed up its exit by the Shire just in the same manner as Tanganyika has closed its outlet by the Lukuga. Vegetation is so dense and rapid in Central Africa, that it does not take long for a barrage to be formed. But, by this very means, and in course of time, the Lake again rises until eventually it sweeps away the barrage and the overflow spills into its former channel. There were recent indications that this was actually taking place. It seems probable, on the evidence of these raised beaches, that some such cyclic *régime* of the Lake has always been going on.

Our further journey, from Fort Johnston, led past the very spot where the barrage had formed. We had to row in small boats along the three-mile course of the Shire, up to its junction with Lake Nyasa, in order to join the Government steamer *Gwendolin*, which was anchored in the Lake.¹ We then steamed to Monkey Bay, not far distant. At this beautiful place there is an excellent harbour, with fair fishing and shooting near at hand. At Kotakota, a port on the west shore of the Lake, we took on board a

¹ It is interesting to record that it was this steamer, the *Gwendolin*, which, at the outbreak of war, destroyed the German armed steamer *Von Wissmann* and captured its officers. In the grey light of dawn, she surprised the enemy ship undergoing repairs at Amelia Bay (Wiedhafen). Three shots across her bows awoke the sleeping officers and crew of the *Von Wissmann*, who, after a feeble resistance, surrendered and were taken prisoners.





S.S. "GUENDOLIN" IN M'TENGULA BAY, PORTUGUESE EAST AFRICA.

hundred carriers and forty bags of rice. We then ran across to Mtengula, on the Portuguese side. Here there is a moderately good harbour, but bad anchorage and exposed to the swell from the south. Still, it is one of the few ports on the eastern side; and if a railway comes across to Nyasa from the splendid harbour at Pemba Bay, in Portuguese East Africa, it probably will have its terminus at Mtengula, although Rye Bay, near by, has a better anchorage and is sheltered from all sides but the west.

Before leaving Portuguese territory, we visited the small island of Likoma, the Nyasaland headquarters of the Universities' Mission to Central Africa. The Mission has schools all along the coast and at places inland; and has built for itself a "cathedral" constructed of stone. It may be recalled that the first attempt at any form of European settlement in the Shire Highlands was made by this Mission, inspired by Livingstone's reports.

From Likoma, we crossed the Lake to Chinteché, a British Government station; and at Nkata Bay we landed the carriers and most of our loads, pending our return from a trip higher up the Lake to Florence Bay. The mountains on this North-West Coast rise almost sheer from the water, which carries soundings of over three hundred fathoms. At Florence Bay I climbed up three thousand feet to Kondowe Station, which belongs to the Scottish Free Church Mission, under the *doyen* of missionaries in Nyasaland, the Rev. Dr Laws. A vast amount of industrial work has been carried out successfully by the Free Church

Mission in the Protectorate, and natives educated by them are to be found throughout Southern Africa. This has been the life work of Dr Laws: both he and the Church he represents have reason to be proud of the results attained in the districts bordering on the western shores of Lake Nyasa. Excellent work on somewhat similar lines has been done in the Shire Highlands by the Established Church of Scotland under the Rev. Dr Hetherwick.

On our return from Florence Bay to Nkata, we encountered heavy weather and a big head sea. It is surprising how rough it can be at times on Nyasa. This is due to the South East Trade wind being drawn into the trough of the Lake, up which it blows to the north and piles up a heavy following sea. Fresh water, too, not having the density of salt water, develops a steeper and shorter wave-form.

At Nkata, we made final preparations for our land journey to Lake Tanganyika.

CHAPTER V

ROUND TO TANGANYIKA

North-Eastern Rhodesia—The Atonga natives—Some shooting
—The Luangwa valley—The Chambezi—Abercorn—Moliro.

ON the journey between Lake Nyasa and Lake Tanganyika, we made a considerable *détour* towards Lake Bangweulu in order to see something of North-Eastern Rhodesia and to get some shooting on the way.

We started with a hundred and thirty carriers. Near Nkata we visited the rubber plantation of the African Lakes Company, whilst our caravan went on ahead to the first camp. The output of rubber at that time (with about one thousand four hundred acres under cultivation) was some three tons a month, mostly from wild "root-rubber." "Pará," too, was doing well. West of Nkata, there is a considerable tract of country—dense, jungly forest—with about double the average rainfall of Nyasaland, where this description of rubber can be successfully cultivated.

Crossing the Kafusi and the Luaya Rivers, we passed through country in which, between 1887 and 1890, I used to shoot elephants. Now, there is not an elephant to be seen. But there is a considerable

population of Atonga. Formerly, these people dared not leave the Lake shores for fear of Mombera's Angoni (Zulus), who, in the bad old days, used to raid the tribes surrounding their own country in the highlands of the west. Tribal war and slave raids having ceased, with the advent of British rule, the Atonga have prospered mightily. They are very intelligent. Many go south, to Rhodesia and the Rand, where they earn high wages as clerks, skilled labourers, overseers, interpreters, and in other ways. Educated, as most of them are, in the schools of the Free Church Mission, the Atonga who go south are not disposed to take on work that entails severe labour; and they do justice to their Scottish training by sending home much money or returning with it: in this way accumulates the bulk of the gold coin of the Protectorate.

There is now little or no game in the districts immediately to the west of Lake Nyasa, and it was not until we got clear of the forests and bush and reached the fine open grass country—called "Vipsha"—that we were able to get meat for ourselves and the carriers.

After three days' march, uphill, our first camp in the Vipsha was at five thousand feet. Here we found roan, antelope, and zebra. The nights were bitterly cold, but without wind; and, by camping in sheltered clumps of bush at the head of gullies, our men were able to get shelter: with blazing fires all night and plenty of meat, they were quite happy.

Leaving this beautiful, uninhabited country—

the Vipsha—we continued our march to the west and got into scattered bush at a somewhat lower elevation; and then entered Mombera's Angoniland. At the Mzimba Government Station, where I stayed with old friends, I had the satisfaction of meeting my son, who, from his station at Lundazi (North-Eastern Rhodesia), forty-five miles distant, bicycled over to see me.

Owing to sleeping sickness regulations, we found we could not cross the valley of the Luangwa without permission from the Administrator at Livingstone. This somewhat upset our plans. We had to send a messenger to the telegraph station at Kondowe, whilst we ourselves went on to the Rukuru River to get some shooting, pending a reply to our request for the permits.

We struck the Rukuru, after two days' march, at a point where its course was north-east: a running river, with deepish pools and reaches, and plenty of game near its banks—principally zebra, eland, and waterbuck. Here we remained a day to rest the men and load up with meat; and then we went down-stream to the junction of the Rukuru with the Luwewe. The latter stream was dry, but there was a large grass flat at the confluence covered with game and showing fresh buffalo tracks. Game of the common kind in large quantities were found farther down the river at Katsuni Lake, where we shot hippos. I also went in search of elephants in the dense thicket country known as Turu; but, seeing no recent spoor, I did not pass beyond its

borders. All this country had become parched since my visit three years previously, as the result of two abnormally dry seasons ; in the rains, no doubt, there would be plenty of elephants on the Rukuru.

Having obtained the necessary permission to cross the Luangwa valley at Kambombo, on condition that our carriers were medically examined on arrival at Kasama, we made a fresh start. After leaving the Luwewe River, and crossing the watershed boundary of the Nyasaland Protectorate, we descended into the Nyanjara valley (North-Eastern Rhodesia). Here, at one village, the churlish natives declined to give our thirsty carriers any water and also refused to disclose the position of their spring ; so we had to pass on, and consequently had a very bad march. We tramped up hill and down dale over the hot stony ground for six mortal hours, the heat being simply stifling. Descending into the Luangwa valley, we arrived at the village of Dungurungu absolutely played out, having had nothing to eat or drink since five in the morning, on a march of twenty-two miles.

Warned by this experience, we decided to take no more chances in the inhospitable Luangwa valley ; and our marches were made mostly before dawn. In the sunlight hours between ten and five, movement was made all but unbearable by the great heat. We experienced great difficulty in obtaining reliable information regarding the route we had intended to take ; but, after much discussion with the natives, we decided to proceed by short marches farther down the Luangwa for six or seven miles, and then to take

off due west. This we did; and eventually, fifteen miles west of the Luangwa, we obtained water from a deep hole at the village of Pasikulinga, on the little stream-bed Mesya.

We reached the foot of the gentle hills flanking the Muchinga Range, by way of the Salangu valley (tributary to the Luangwa) in which we found pools and some running water. Rising higher, the country became greener and fresher; this is the country of the Asenga, a people we found to be deceitful, dirty, and unattractive. Still higher, on the Muchinga slopes, we luxuriated in a charming climate, enjoying the cool days and cold nights.

Our immediate objective was Lake Young, so called; but it was very difficult to ascertain the right route. The guides took us north of north-west to a cleared road. We told them we must go south of west: but, in that direction, they told us, there was no water, no road—and all the rest of their objections. So we decided to take our own line, straight through the forest, advancing by easy stages.

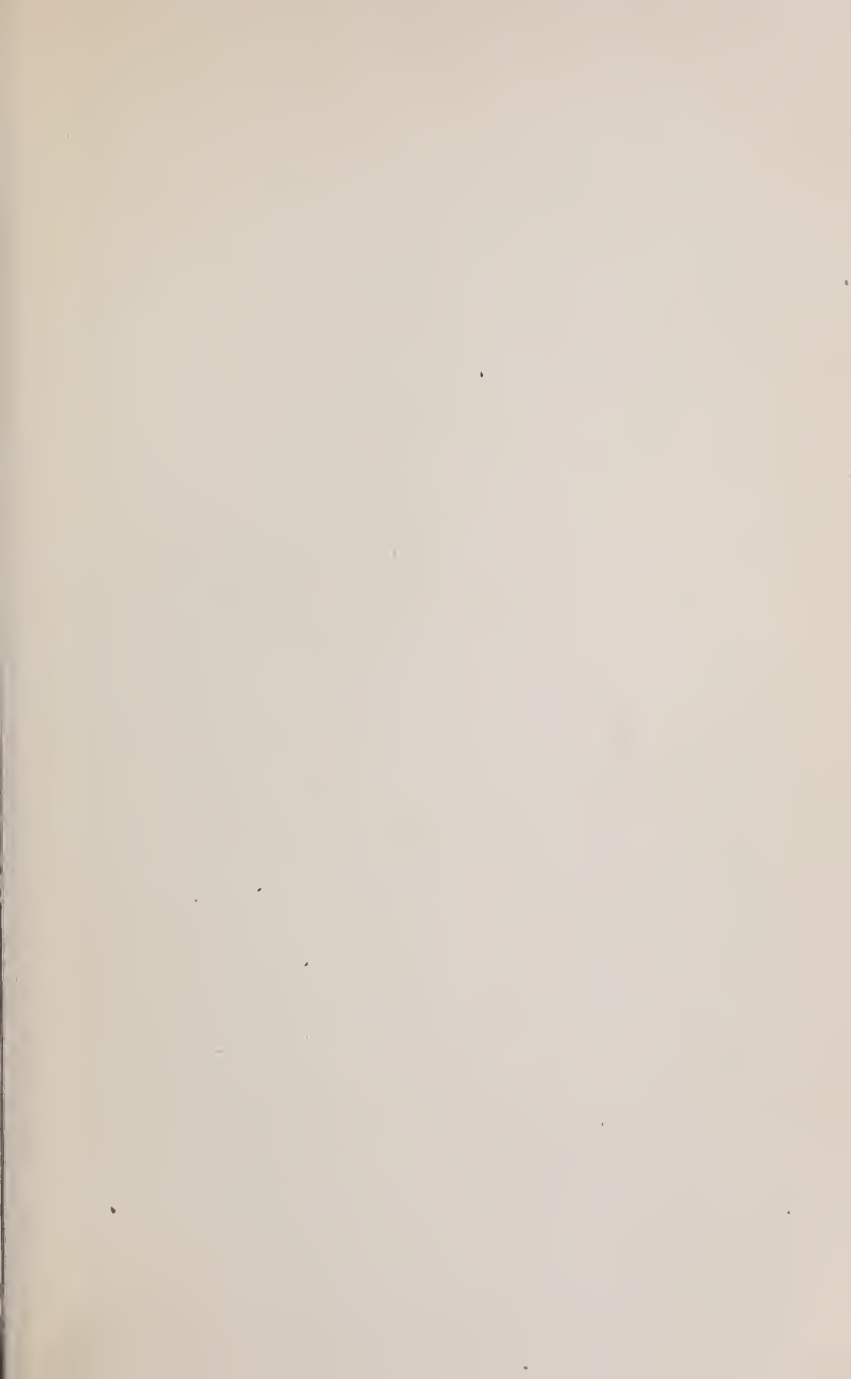
The watershed between the Luangwa (a tributary of the Zambezi) and the Chambezi (a tributary of the Congo) is farther to the west than on the latest map I have seen of North-Eastern Rhodesia. The country is undulating and was all but gameless in the parts we crossed.

After crossing the watershed between the Luangwa and Congo, at five thousand and fifty feet, we entered the Mansya Valley and reached Lake Young. This small lake, the open water in which may cover about

seven miles by two, is so entirely surrounded by swamp—about half a mile in width—that it is practically isolated. In the Mansya Valley we found puku, waterbuck, and the rare antelope called “situ-tunga,” two specimens of which we secured, one having horns thirty and a half inches round the curve.

From Lake Young our course still lay west to the Chambezi River. Throughout that tract of country, and especially on the Mansya, *tsetse* fly are a positive plague. Every valley held a stream of clear cold water. There were no paths and no villages; and we simply took our own line through the bush. We passed several lodes of ironstone conglomerate: one soon after leaving Mansya, another when we camped on the Mwamanena stream.

Reaching the Chambezi at a place where a reef of rock athwart the river-bed forms a convenient ford, we camped on the west bank. It is a beautiful river of clear water, with pools, rocks, nice runs and deep reaches: full of tiger-fish, which take the spoon readily. On the first afternoon we landed tiger-fish averaging four pounds in weight (the largest being over six pounds) and totalling over a hundred pounds. The best method, we found, was to sit in the stern of a dug-out canoe, which a native paddled. I used large-sized spoons and “Hercules steel gimp,” with a short and fairly stiff trolling rod. Not having a gaff, we had to land on rocks and banks in order to play our fish, or, trusting to the strength of the line, we lifted them bodily into the canoe. Tiger-fish have teeth like wire-pincers, and can bite





PORTERS CROSSING CHAMBEZI RIVER, NORTHERN RHODESIA.

through ordinary gimp quite easily—they can even cut wire, unless it be thick or double: so that strong steel traces or four inches of wire above the spoons are required.

Having laid in a stock of meat and flour, we marched west till we struck the Kasama-Fife road, which we followed, more or less northwards, to Kasama, crossing the Lukulu on the way. Being a well-constructed road, with a fair surface, and having no steep hills to negotiate, we were able to make full use of our bicycles. We used to strike camp and send off the men with their loads in the early morning. This left us free to spend our time on whatever of interest chanced our way; and it enabled us to go ahead in order to select a suitable camping ground. Occasionally, we would see game; and then we waited for our gun-boys to come up: they were never far behind.

At Kasama our men were medically examined for sleeping sickness. Kasama is an important station of the British South Africa Chartered Company's administration, situated four thousand seven hundred and fifty feet above sea-level. It is a somewhat desolate, straggling place, but said to be healthy.

We then started northwards, making for Abercorn and Lake Tanganyika. On this section of our route, we travelled along a made road through undulating, wooded country, as far as the Karunga River. Leaving the road at this point, we went in search of game, heading north-east through bush for the Upper Chambezi. We wandered for some days through

this country, without a guide, and struck the Upper Chambezi just above the confluence of the Chamfuwo River, where it is a deep stream about thirty yards wide flowing sluggishly between banks covered with thick jungle. Here, finding game, we stopped to shoot for the pot. We got five roan, four hartebeeste, and a bushbuck. After putting aside a supply of fresh meat, we set the men to work at drying meat for future use.

The heat in these parts, in October, was rather trying (the thermometer generally registered ninety-five degrees Fahrenheit in the shade during the four hours after noon), but the nights were fairly cool.

Following up the Chambezi for some miles, the going was good, and we were able to take short cuts, as the country had been burnt quite recently. We saw two *Cobus Crawshayi* (Crawshay's waterbuck), of which I shot one. These are much darker in colour than *Cobus Elypsiprymnus*—the common Nyasaland waterbuck—and have no white marks on the stern.

Crossing the Luella, a small tributary of the Chambezi, we got back to the Kasama-Abercorn road. Except that we were then on a higher "steppe"—about five thousand feet, before reaching Abercorn—the country was of the same monotonous character as the rest of the great Awemba plateau. The natives we met were amiable and polite, but rather stupid and listless: they neither toiled, nor did they sing.

At the Musombezi River we spent a day in the big

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AN AWEMBA "BAND," NORTHERN RHODESIA.

papyrus swamp in search of "situtunga," and got two bucks, each with horns a little over twenty-two inches. Two days' march, finally, brought us to Abercorn—a station of the Northern Rhodesian Administration.

Twenty years ago Abercorn was of greater importance than it is at the present day. A great deal of the trade for Tanganyika and the country west of that Lake then passed through Nyasaland and across the Nyasa-Tanganyika plateau, by the Stevenson road. But German enterprise on the East Coast of Africa diverted most of the transit trade to Dar-es-Salaam. What remained of it fell away, for the time being, in consequence of sleeping sickness on Lake Tanganyika, which necessitated the removal of natives from the British shore to places inland.

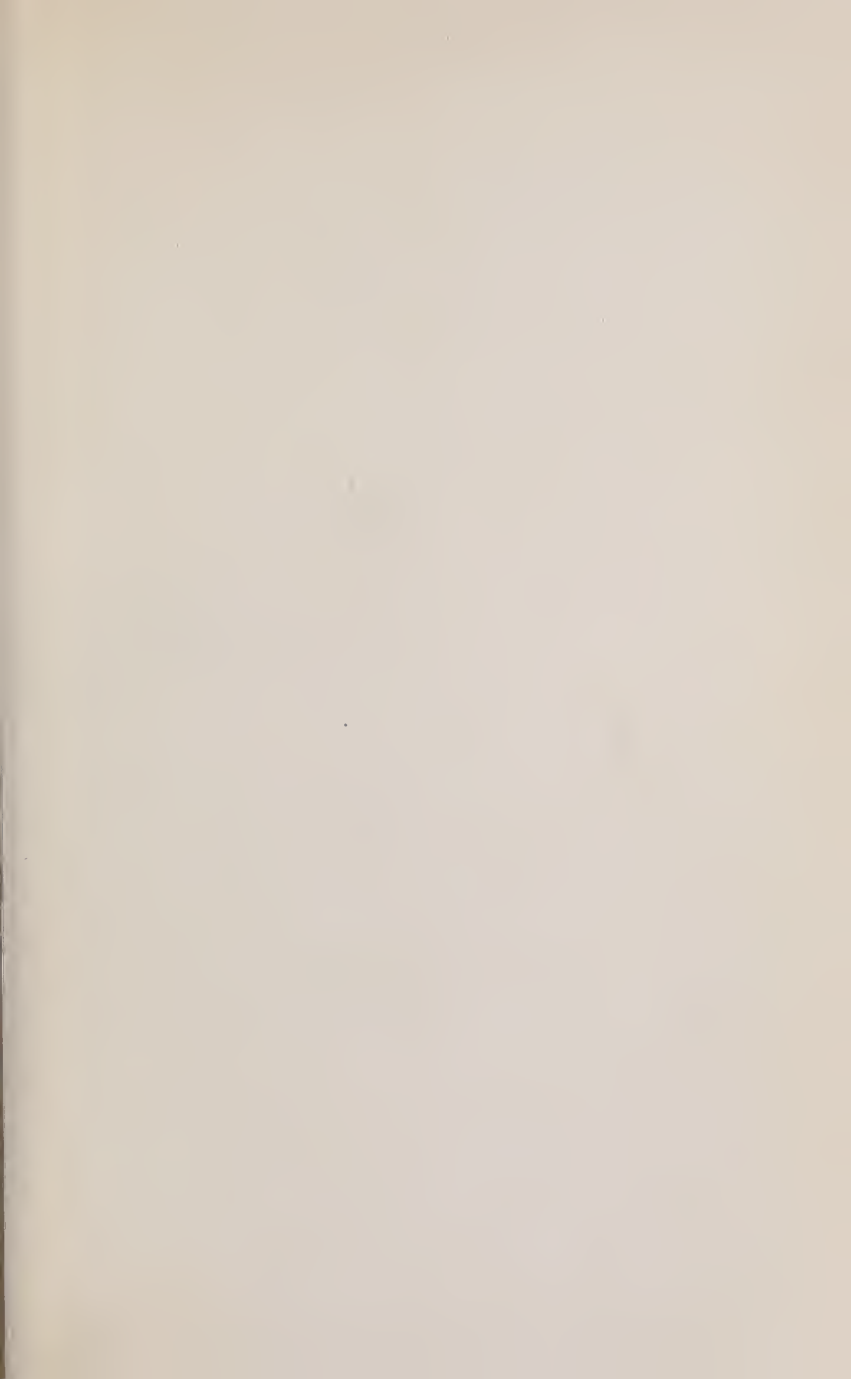
At Abercorn we made arrangements to sail up the Lake in the German steamer *Hedwig von Wissmann* (since sunk by British motor launches) as far as Ujiji, and from thence go on to the north end; but as this steamer was not due to leave Bismarckburg (what a terrible name it sounds now!) for some time, we decided to join her at Moliro—a Belgian station on the Lake, near the frontier. After despatching most of our loads to Bismarckburg, we organised a small *safari* (expedition) to the great marsh known as Mweru-Wantipa, which lies within a short distance of Lake Mweru. We had three weeks at our disposal for a shooting trip.

The Mweru-Wantipa marsh originally was a lake forty or fifty miles long by fifteen to twenty miles

broad; and near the north end of the lake was the island of Chepiri. When first I knew this district, the north-west shores and Chepiri island were a haunt for elephants. The marsh now is a Game Reserve, and more or less dried up; but elephants still wander about it in considerable numbers. In 1890, I saw more buffalo there than I have seen in any other part of Africa—vast herds of them fed on the shores of the marsh—but, in 1892, rinderpest spread through the country, coming from the north, and the buffalo died off in their thousands. On this journey none were to be seen.

We followed the shore of Mweru-Wantipa to Katonga “bay,” and then struck across through the swamp to Chepiri island—a truly exhausting walk through dense reeds, under a broiling sun. Although close to elephants at one spot, we missed seeing them, owing to the high reeds around us. We got one the next day, however, with tusks weighing seventy-five pounds each. On the island—now deserted—I saw a large python among the rocks: but the local natives asked us not to harm it, as it was the “spirit” of the last owner of the place.

We should have liked to spend more time at the marsh, but, having arranged to meet the German steamer at Moliro, on a fixed date, we made a start back for Tanganyika by way of Chyochya and the Anglo-Congolese boundary-line. The heat in the marsh district was so great, after ten in the morning, that we found it better—there being a half-moon—to start at three a.m. and finish our day’s march by





ANTHILLS NEAR KASAMA, NORTHERN RHODESIA.

(The ants build thus in open ground which is liable to be flooded during the rains.)

nine or ten o'clock. There was a fair amount of game on the way—mostly hartebeeste (Lichtenstein's) with occasional reedbuck—and thus we were able to keep ourselves and the men in supplies.

We had now got well into the rainy season, and were a good deal delayed on our march by violent rains and wind storms. After striking the Belgian road, which runs from M'pweto (Lake Mweru) to Moliro, travelling was easy; and we made full use of our bicycles. On arrival at Moliro we put up our tents, paid off the carriers and sent them back to Abercorn. We had nothing to do then but to wait for the arrival of the German steamer, which had taken on our heavy baggage at the station I have mentioned.

CHAPTER VI

LAKE TANGANYIKA

By German steamer—Kilando—Ujiji and Kigoma—German methods and projects—Arab traders—Uvira.

AFTER a delay of some days, the German steamer called at Moliro; and we were glad to get on board for our voyage up the Lake. The *Hedwig von Wissmann* was a small boat, of about fifty tons; and she had no sleeping cabins, except one for the captain and engineer: so we had to make shift, with our belongings, on the bridge-deck.

Our course lay almost due north, to Kilando, on the German shore: a run of seven hours. The Lake was glorious. The eastern (late German) side of Tanganyika is not so high as the western, at least in this part: on the Belgian shore, opposite Kilando, the high plateau rises over four thousand feet above the level of the Lake. Except that the water is dark green, rather than blue, in colour, Tanganyika bears a very close resemblance to Nyasa; but it has better and more harbours.

At Kilando a number of islands form excellent harbours. Part of the bush near the landing-place had been cleared, as a preventive against the spread

of sleeping sickness by *tsetse* fly (*G. palpalis*). There is a mission station, with handsome buildings, situated on the mainland; and, on a large island opposite, a segregation station for sleeping sickness has been established.

After leaving Kilando, we encountered a northerly wind and a nasty head-sea, which laid many of us low; but next day, on the wind dropping, we coasted comfortably to Kasolamimba and anchored for the night. Here the coast was very picturesque, the wooded hills rising abruptly from the water and forming sheltered bays at several spots. During the night, however, we had two very heavy squalls, accompanied by a thunderstorm and sheets of rain. Our skipper, who was not particularly civil, did little to help us; but, I must say, he happened to be an exception in that respect to the general run of German officials we met.

As we approached Ujiji, three hours' sail farther to the north, the eastern shore became lower and the scenery less attractive. Villages are numerous and the Coast is well populated. There are no German Government stations nor European settlements between Bismarckburg and Ujiji, along the eastern shore.

At Ujiji everyone was looking forward to great developments on Tanganyika when the railway to Dar-es-Salaam was completed. It was the intention of the German Government to put two steamers, of five hundred and eight hundred tons, on the Lake. The terminus of the railway being at the harbour of

Kigoma, four miles to the north of Ujiji, the question was unsettled (at least, when we were there) as to whether the European colony should be transferred to Kigoma. In many respects it would be inadvisable to abandon Ujiji, because the surrounding country is clear of bush and scrub, and there are any number of mango trees, palms, oil-palms, dates, and coconuts, not to speak of the dense population of natives. The existing site of the Ujiji "Boma" is good: well raised up, and with a fine outlook on the Lake right across to the mountains on the opposite shore. The climate, too, is pleasant, even in the rainy season.

The Tanganyika Railway was completed in 1913. The chief incentive to building it arose from the fact that the Germans were much impressed by the success of our Uganda Railway, and formed the opinion that any line from the African Coast which had its terminus on the shores of one of the Great Lakes was bound to prove a profitable undertaking. Their railway is nearly two hundred miles longer than the Uganda line; but whether a commensurate or even equal extent of trade will be created is a question of the future.

The populations affected by these two railways are very dissimilar. Round the Victoria Nyanza the natives are highly civilised—judged by an African standard—and all are ambitious to grow and export produce; but on Tanganyika, with perhaps the exception of the immediate surroundings of Ujiji, the natives are more primitive and backward: they lack enterprise, which German methods do little to

foster, and they do not inspire confidence in their capacity to advance.

It is, however, certain that in course of time the Dar-es-Salaam-Ujiji Railway will attract a large amount of trade; and steamers on Tanganyika, calling regularly at the various ports, will collect considerable quantities of native produce. Sailing dhows carry on a subsidiary transport trade in wax, rubber, ivory, ground-nuts, and palm-oil. A short railway (about seventy miles in length) should be built to connect the north end of Tanganyika with the south end of Lake Kivu, which would bring down hides and horns from Ruanda and the Belgian districts west of Kivu, as well as rubber and ivory from the Congo forests. There are great possibilities for this part of Tanganyika territory (the late German East Africa); and Ujiji—or, rather, Kigoma, the terminus of the railway—should become a busy trade centre for the produce of many contiguous regions. Unless we connect up Lake Tanganyika by railway with our own territories in the south, and so open up an alternative route, the line between Ujiji and Dar-es-Salaam will continue to be the quickest and cheapest for passengers and goods in transit between the most northern parts of Rhodesia and Europe.

The native town of Ujiji covers a wide area, and is said to have a population of about twenty-five thousand. There is also a large scattered population in the surrounding districts; and most of these country natives have large *shambas* (plantations). There were, at the time of our visit, thousands of

natives working on the railway and on the bridge over the River Malagarazi: in consequence, the Arab traders of Ujiji were doing a thriving trade in food-stuffs. Much cassava is grown to meet the Ujiji demand; while most of the outlying hamlets on the lake shores have canoes, fitted with masts and sails, which carry produce to the market.

Ujiji women follow Zanzibar (i.e., metropolitan) "fashions," even in hairdressing. They are richly and gaudily clothed, and are much more independent than their sisters in less civilised parts. In their morals they are very loose: indeed, in Africa, one generally finds that the more civilised the natives become, the more lax are their morals. The men generally are engaged in trade; and, in their absence, the women are left in charge of the houses and *shambas* (cultivation). Domestic life suffers in consequence.

Between Ujiji and the northern end of the Lake, the Coasts on either side are bordered by high mountains, in which, at elevations between five and seven thousand feet, are large herds of cattle. On the eastern side there are extensive areas of flat land, between the mountains and the Lake, covered with forests of oil-palms. Although widely distributed, and growing apparently wild, it seems improbable that the oil-palm in this region is indigenous; more likely, it was introduced from the Coast—east or west—in very early times, and flourished as an exotic in consequence of suitable local conditions.

The upper part of the Lake is even more beautiful

than the lower. Steaming across the northern extremity, we reached the Congo station of Uvira, which lies on the first gentle slope towards the foothills of the high mountains behind (eight to nine thousand feet, in elevation). In the distance, looking eastwards, are the great ranges in the Uhha and Urundi countries. Truly, magnificent countries are to be found in these high-lying regions, densely populated, crowded with cattle, and with a climate favourable to Europeans.

The Germans do not appear to have made the progress one would have expected of them in obtaining complete control over their Tanganyika possessions. For example: the district of Urundi (to the north-east), though full of natives and cattle, was practically unadministered at the time of our visit; and they were then only hoping soon to be in a position to impose a small hut-tax. But German methods of dealing with natives are what we might expect from a nation so rigorously disciplined: so many things are *streng verboten*. They expect implicit obedience, even in the smallest things. Having no patience with their child-like character, nor any sense of companionship, their great idea is to impress the natives under their control and to frighten them into instant compliance with all their commands, reasonable or otherwise. They are tyrants and task-masters.

Many years ago, at Neu Langenburg, the German District Officer showed me round his station. Pointing to a gallows erected on the most prominent hill,

he explained to me that, whenever a native was hanged, the body was left dangling there for a week as an awful example to evil-doers. At German stations we never saw natives coming in spontaneously for advice or assistance in petty matters of dispute between themselves. The only people one saw there were those who had been sent for, and who came in fear and trembling as to what was going to happen to them. They may have greater cause for wonder in the future, especially if called upon to choose between German and British rule.

Our Tanganyika trip ended at Uvira.





RUSISI VALLEY FROM ABOVE GUVAMBI, BELGIAN CONGO.

CHAPTER VII

JOURNEY TO KIVU

Congo porters and transport charges—The Belgian officials—The Rusisi valley—Leisurely progress—Difficulties with carriers—Kabwika—Tropical forests—"Tanganyika" district — Lukwisha — Lukavya — Mtamba — Chawangwa — Kabishola—The glow in the sky—Desertion by porters—Lukemba.

As soon as the men we required for our journey up the Rusisi valley were forthcoming, we made a start for Luvungi, a Belgian station, situated about half-way between Lake Tanganyika and Lake Kivu.

Before leaving Nyasaland I knew that our main difficulty in the Congo would be to obtain carriers for the journey. I should have preferred to bring Nyasaland men all the way with us; but, travelling by the German Tanganyika steamer, there would not have been room on board for all the porters we required. I then thought of Ujiji, and tried to get Wanyamwesi carriers there; but the German Authorities were unable to let these enter Congo territory, owing to sleeping sickness regulations. We thus were compelled to rely on procuring local carriers in the Congo colony.

In Belgian territory, however, the porter system is based on difficult conditions. Along the well-known

routes there are regular stages; and porters are engaged, at fixed charges, to go from post to post. To obtain carriers for a journey of exploration, or even to engage them by the month, is a difficult matter. In consequence of this impediment a large extent of country to the west of the Rusisi valley remains all but unexplored—except, perhaps, by some wandering elephant-hunter from Uganda who may have pushed in with his half-dozen boys.

Natives in the Upper Congo regions are treated by the Belgian officials with great leniency and consideration: a point which bears directly on this question of portage. I know nothing of the Lower Congo; but in the eastern borders of the Upper Congo which I visited (in 1912-13, and again in 1915-16-17) I was impressed by the care exercised everywhere for the welfare of the native. Indeed, I felt inclined to think that in some respects their treatment was too indulgent. For instance, the charges made for native labour, native carriers, and native produce were high for a remote part of the interior of Africa: at least, these charges were considerably higher than in Nyasaland and Uganda. The difficulty, first of obtaining, then of controlling, local carriers for an expedition such as ours was very great.

The farther one penetrates into the Rusisi valley the more beautiful becomes the scenery. There is no rank growth of grass—probably owing to the grazing of large herds of cattle—nor, with the excep-

tion of euphorbia, are there many trees. The Warundi inhabitants of the country north of Lake Tanganyika are a quiet, amiable people, living largely on milk and bananas. They are expert workers in metal, and wear copper or iron belts. As carriers, we found them fairly good.



Our day's march rarely exceeded twelve or thirteen miles from stage to stage; and, as we made a practice of starting at daylight, camps were pitched usually before ten in the morning. This was very leisurely progress, after our experience in Nyasaland

and North-East Rhodesia, where we seldom did less than seventeen miles a day.

The road from Uvira to Luvungi was fairly good, and we could use our bicycles most of the way. Our original plan had been to strike west from Luvungi and endeavour to reach the south-eastern borders of the great Congo Equatorial forests. But, whilst we found it hard to obtain information about the country lying immediately to the west of the Rusisi, there was a consensus of opinion that it was a land of steep and broken mountains, very difficult to traverse and with a population considered to be somewhat troublesome to wayfarers. Even in the modified route we had been compelled to adopt, we found, at first, that no carriers were to be obtained except from village to village; but, after much consultation with the Luvungi *chef-de-poste* and a half-caste Arab, we managed eventually to rake together sixty men, who undertook to carry our loads to a locality called "Tanganyika," about six days west-north-west of Luvungi and just on the borders of the forests. Our Arab friend told us that at "Tanganyika"—where, it is scarcely necessary to add, he himself intended to go—we should be able to get forest people to take us farther west: and we, therefore, entertained the hope of finding our way through the forests to Walikali (on the Lowa River). It is true we felt some misgiving about the reliability of this local Arab half-caste: but the great thing was to hasten our departure. We agreed to pay the porters four francs each, and an extra franc by way of food allowance,

for the six days' journey; and, anyway, we made a start.

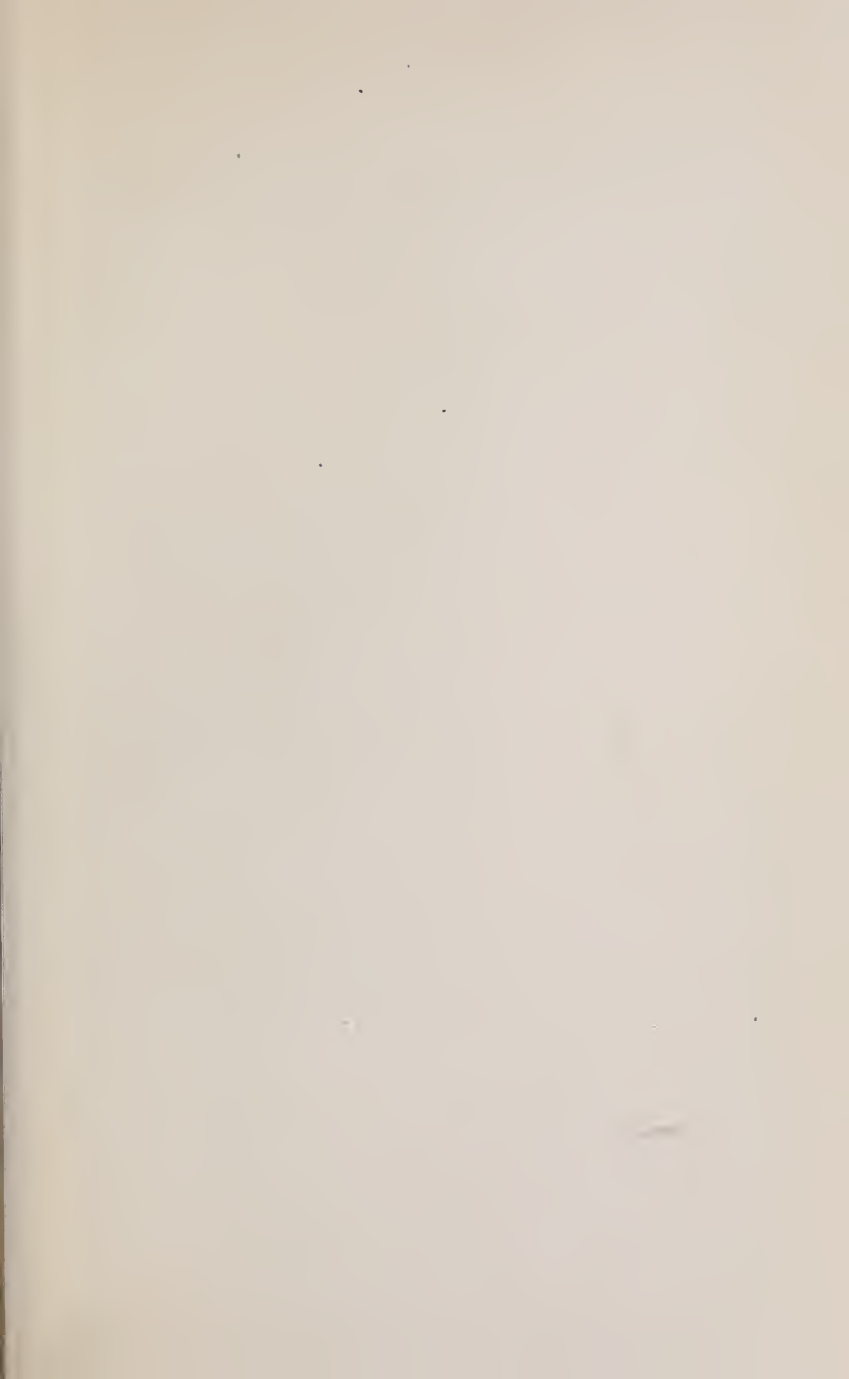
The flat land in the Rusisi valley was clear of bush or scrub and covered with herds of cattle. On the first day's march along a good path, our men objected to going farther west than the foot of the big mountains, and we had to camp at Kabwika's village. Kabwika, himself, was quite a nice man; and he provided us with guides, supplies of milk, bananas, and native food. Dressed in European clothes and a sun helmet, he wore round his neck a polished metal plate on which there was an inscription, for the information of those concerned, that he was an authorised head-man. He and his people, of course, were *soumis* to the Belgian Government: that is to say, they had accepted white rule.

As we approached the mountains, the scenery was grand: from the foothills we had a fine view also of the eastern range, on the German side of the Rusisi Rift valley. On leaving Kabwika's, we began our climb almost at once, reaching elevations that culminated in a spot four thousand three hundred feet above Kabwika's and seven thousand three hundred feet above sea-level. We then descended to Nyakaziwa, a collection of villages situated on a flat among the mountains, crossing on the way the divide between the Congo basin and Lake Kivu. It was a very exhausting journey, this switch-back progress across the ridges: a rise, perhaps, of a thousand feet with a corresponding descent farther on, ridge after ridge. There was nothing but short grass on the

hills, except near the crests (some of which reach nine thousand feet in elevation) where there were patches of thick jungly forest. All around were villages and immense groves of bananas and plantains, with gardens of beans and cassava. The people are much alike in appearance, and speak the same language, as those in the Rusisi valley; but, although of the same stock, each district bears a distinctive tribal name. They were most persistent beggars, pestering us for gifts, and yet more gifts, on every possible occasion.

Near Nyakaziwa were quantities of iron-ore, in some places associated with quartz; and we saw reefs of shale, but no actual coal. Passing into the country of Ngwesi, we found it simply crawling with cattle, numbering hundreds of thousands. In these grass mountains, covered with enormous groves of bananas and numerous hamlets, the population is very large. The people are careless, independent, and very talkative: they show scant respect for the white man, as such. One chiefling refused to sell us either firewood, goats, milk, or anything else, and was uncivil in his bearing. Farther on, at Lungika's, we encountered a very impudent people: not bad exactly, but without manners except such as were much in need of correction. A firmer hand over these people would do them no harm.

Our carriers also were very independent. They stopped or went on, just as it suited them, and did as they liked. We had been told, before starting, that we should not be allowed to chastise them for





CONGO FOREST CARRIERS ON THE MARCH ; CHAWANGWA, BELGIAN CONGO.

bad behaviour ; and, since they were paid in advance, we had no hold over them : even their food allowance money had been spent, and they had brought nothing with them save a few sticks of cassava and some cobs of corn.

After leaving the Mshweri district we passed out of the grass hills and entered the true forests of the Congo, under a deluge of rain. The change from the grass country—probably some two thousand square miles in extent—to the densely afforested region is very abrupt: practically, in a few yards the sun and bright open country are left behind and one enters the tropical forests, dripping and reeking with moisture. In the forest there is an impenetrable gloom: the only sounds heard are the cries of parrots, the only signs of life are those afforded by an occasional monkey. In these south-eastern limits of the Congo Equatorial forests there is practically no game, but a fair number of chimpanzees. It is broken country, without any level ground. The tracks we followed were very narrow, crossed by creepers and the roots of trees, deep in liquid mud and never on the level—always either climbing or descending steeply. The undergrowth is of the densest kind, so thick as to prevent a passage being made except with axe or knife. There are, however, few insect pests—no mosquitoes, and not many flies. How the carriers managed to get along was to me a wonder. We were drenched to the skin all the time.

It took us seven days to get from the Rusisi to the

group of small hamlets known as "Tanganyika," built on cleared ridges in the forest. We descended a long valley, with more ranges of afforested mountains visible to the north and west, in which there were many beautiful flowering trees and orchids. All the streams and rivers flowed to the Congo. I had no idea, before this, that the mountains separating the Tanganyika-Kivu rift from the Congo basin, lying considerably lower, reached so far west as they do: they certainly cover a belt of sixty miles. We were unable to do more than eight or nine miles a day—sometimes not so much—and each march occupied five or six hours.

Our first night in the "Tanganyika" district was spent near a small village. Here the carriers stole bananas from the gardens; and, when we started the next morning, we found that the local natives had fled. After much trouble, we succeeded in finding the chieftling, and gave him six francs, with which he was quite satisfied; and we parted the best of friends. Shortly after this incident our carriers stopped at a hamlet and refused to go any farther, in spite of their having impressed local people to carry their loads for them. This conduct passed the limit of our sufferance: we caught and thrashed every man we could lay hold on. The result was excellent. Willingly and contentedly they shouldered their loads; and we had no further trouble with them.

We travelled some distance down the valley of the Karugwe River, then climbed a high mountain and passed through dense forest, with precipitous hill-

sides, in order to reach the head village of "Tanganyika." Here, on the hill-top, where it was difficult to find a few level yards on which to pitch the tents, we were left by our carriers, who returned to Luvungi.

After a few days, we succeeded in getting together the porters we required. They were a wild-looking lot: unaccustomed to white people, somewhat shy and not over-willing, but on the whole amiable and well disposed. They, however, consented to go only as far as the village of Lukwisha, a Waregga chief. They carried their loads on the back, with a supporting band round the forehead, very much like the Madeira people. How any man could carry a load at all, up and down these forest mountains, was ever a wonder to us. Our journey was through dense forest: not a yard of flat, the path mostly stream-beds, with almost perpendicular declivities: all mud, and as slippery as grease. The people in those parts were iron smelters and hoe and axe makers, iron-ore being plentiful. The carriers, at their own request, were paid in salt, the local value of this luxury being reckoned at a very high rate.

It took us two days to traverse the eight or nine miles separating "Tanganyika" and Lukwisha. The Lukwisha people were quite friendly: indeed, they cut a path for a mile of our road and gave us the customary gifts of a goat and plantains. We liked these wild forest natives better than the people of the plains, who had been more in contact with Europeans—they were, so far, unspoilt.

West of Kivu the natives are great smokers. They carry their pipes about with them, and light up at every halt. The pointed bowls of their pipes are made of cut wood or burnt clay, attached to which, at an acute angle, are reed stems about eight inches long. They grow their own tobacco, of the usual imperfectly cured type so commonly smoked by African natives. Of clothes, the Waregga have scarcely any. Apart from the brass or iron belt worn round the waist, or sometimes a string of beads, perhaps a half-yard of calico may be used by way of a loin-cloth, and that only occasionally. The girls, up to ten or twelve years of age, go naked; their elder sisters have bead belts and wear a head-dress of beads and cowrie shells, if they can procure these. Copper and brass bangles and leg-rings (as well as iron, of course) are very much the fashion. The grown women are very ugly: after middle age, they have prominent paunches and buttocks, which makes them walk with a stoop.

At Lukavya's village, which we reached by a path of the usual atrocious kind, we were planted on a small hill-top overlooking the surrounding ravines, and were told—to comfort us, perhaps—that we were quite close to good elephant country—the lower Kanoshyu Valley, uniting with the Lukulu valley, which itself is a tongue of lower-lying country coming up from the Congo basin and penetrating into the mountains.

Lukavya and his people were more than friendly. They were fond of leading us about by the hand,

and showing us things; and they were anxious to assist us in every way. They had seen little or nothing of Europeans, but were not at all shy. We doctored many children, women and men—mostly for ulcers—and this helped to establish friendly relations. All their worldly wealth they carried on their persons in the shape of beads, and they endowed their womenfolk with copper and iron rings. The native dwellings in the open grass country we had left behind were merely huts, of the beehive shape, slightly constructed. Those farther west, in the forests, were larger and longer in shape, like an upturned boat, with an opening at either end.

The rainy season, apparently, was much the same as farther south. The heaviest rains begin in October and end in June; but whether there are two "rains"—little and big—with a spell of no precipitation between, we could not quite make out. For, it must be confessed, interpreting was a difficult matter, since we had to speak in Kiswahili to our local guide, who, in his turn, converted our words into the local language.

Between the Rusisi valley and Lukavya, there are no beasts of prey. We were told that in the forests there were leopards, but that they never molested man. We saw the skins of several small beasts from the forests which were unknown to us, among them being a reddish-brown monkey with a soft furry skin, and a description of wild cat quite different to those found in Nyasaland. There were buffalo and bush-pigs, but we saw neither.

It is inconvenient living in a village where—as in all these hill places—the houses are built on the top of a ridge. At Lukavya's we could not stir out without going down five hundred feet. In some ways, they were a provoking lot of people. They would dispute every payment and jabber about everything. They did not yearn for calico (owing to their deficient European education): they preferred salt, beads, or Belgian money. Their standard of value was not ours. They asked a franc for a fowl; and a little tin of salt, costing us actually five farthings, would buy almost as much. At that rate, perhaps, we gained on the exchange value received.

After much difficulty, we succeeded in getting together a sufficient number of carriers—mostly women—to carry our sixty loads to a place in the forests, on the Lukulu River, where there were said to be elephants. They carried our loads for three hours to the river, and then all returned home. We pitched the tents in the dense dark forest, about a thousand feet lower than our last camp. Having succeeded in shooting one or two elephants, we were visited by some two or three hundred men, women, and children; but, as they brought no flour or other food with them, to exchange with our elephant meat, according to agreement, our own men got nothing to eat: being Mohammedans, they did not eat elephant meat. The incessant rain and want of food made it impossible for us to remain where we were: so we sent a message to Lukavya asking him to find

porters to take us to Mtamba, a Waregga chieftling living farther north.

We found that the calico we had with us was unsaleable, except at give-away prices. Beads were ready trade, provided always that these were of the exact size and colour in local demand. Salt and Belgian coin, however, were general currency.

When Lukavya and Lukwisha came in, with only twenty men, they declared that their people had refused to carry our loads. They pointed out that the Lukulu, then swollen by the rains, was unfordable. That was true enough; but, after much discussion, the men set to work to make a bridge—by felling two trees and fixing ropes of creepers across the stream—and they laboured so well that, by noon, the so-called bridge was finished. The next day some fresh men turned up; and we all got safely across the river with our loads. On the other side, we were lucky enough to strike a path leading a thousand feet up the mountain to Mtamba's—or, rather, to the first village, Migelya. In order to reach Mtamba's village, about two miles farther on, we had to descend a thousand feet and then to climb up three hundred through a forest where sunlight never enters.

Our carriers were the noisiest talkers I ever came across: they jabbered at the top of their voices all day long. The small children were not shy or afraid of white people: they made friendly advances at once, and, if noticed, became a positive nuisance. Among our carriers was a "red" man—whether with

slight albinism or with a strain of white or Arab blood, it would be difficult to say, his features being distinctly African. Many of the Waregga, however, are comparatively light in colour—a dull red.

Men and women at Mtamba were well made, with fine limbs and well-developed calves. They wore almost no clothing. The women were hard workers, and carried loads as well as the men. They were Waregga people; those to the east, in the open country, were Warundi. Both the Warundi and Waregga were fond of making caps of skin (monkey, wild cat, goat, etc.).

Many of the trees and plants in the forests were new to our men from Nyasaland. We saw a little wild coffee—here and there a bush—and also considerable quantities of the *Landolphia* vine, from which the natives collected rubber and sold it to our whilom friend, the Arab half-caste, who visited those parts occasionally.

Finding, at Mtamba (four thousand two hundred feet), that it would be impossible for us to get any distance northwards through the forests, we were compelled to abandon our project of getting to Walikali, which lay due north, and decided to strike east to Lake Kivu. In that direction, too, there lived a friend of Mtamba, named Chawangwa, to whose village we were offered carriers. Such a chance was not to be missed; so we clinched the matter at once. When, however, after two days' delay, the carriers appeared, we found they were mostly young women.

The day we turned east our luck turned: the rain,

which had been continuous, ceased, and we had four whole days of fine weather. The distance to Chawangwa's (about fifteen miles, but involving twenty-three miles of actual travel) being farther than we had expected, and being, myself, detained until noon before I could make a start, it took me all my time—even running some of the way—to get into camp that night. Most of my carriers arrived during the night; in many places they had to grope along the forest path on hands and feet, so as to avoid falling over the roots and creepers in the darkness. I, myself, found the best way to travel in the forests was to roll up my khaki breeches above the knee, wear rubber shoes, and go straight through everything; oozing black mud, knee-deep, and river beds with water up to the thighs. Fortunately, my friend and I were in good health: in fact, we did not have a day's illness throughout the whole of our journey.

Chawangwa quickly produced carriers for the next stage, many again being women. These women really carried better than the men and were less troublesome; most of them had babies, which they perched on the top of their load or on their shoulder. Travelling in those parts was expensive; but the going was bad, and that made it worth more; the porters, anyway, expected two yards of calico per day (valued locally at 1s. 4d.) which, certainly, was a high price to pay in Central Africa.

Before leaving Chawangwa's, we had a great dance, in which our former carriers joined with the villagers. This consisted chiefly in walking round

and round, with much waggling of buttocks. Neither men nor women wore clothing; but the woman were loaded up with beads round necks and waist, with copper and plaited grass belts, and arm and leg rings galore.

Our first day's march, still going east, took us to an open plot of ground—the first we had seen for three weeks. It was a new sensation, being able to stretch oneself without knocking down a tree or something; and, the weather being fine, we thoroughly enjoyed seeing the sun again. We left the forests behind without any regret, and emerged again into really clear grass country. At the hamlets of Kabishola, in the Kalonge country, we found plenty of carriers.

We had now left the Waregga people behind, and were again among the Warundi. It was delightful once more to have distant views in every direction, free from forest, and to walk dry-shod. Beyond Kabishola's, we still had much hill climbing to do; but the path we followed was good, and we had only a mile of forest (*cum* mud) to negotiate in the valley of the Luha River, which we crossed twice.

The Luha stream—two feet deep and ten yards wide at the place we crossed it—must flow into the Lukulu. It rises in the high mountains east of Makungu's village, not many miles west of the divide. The actual water-parting is a range attaining, at the lowest points, an altitude of eight thousand feet, and with peaks of, perhaps, another thousand feet. Fifteen miles to the north-east was the high peak called "Kausi" at Makungu's and "Mosonga"

at Mtamba's. It was difficult to get correct names of rivers and hills, as the natives generally gave a different name each time they were questioned.

At Kabishola's, we noticed at night a dull red glow in the sky to the north-east, but, strangely enough, none of the people we asked knew what it was. There were no grass fires in that cattle country: and it suddenly struck me that it must be the eruption of a volcano at the north end of Lake Kivu. On taking bearings, and plotting these on our map, it became evident that this surmise must prove correct. The distance was about one hundred miles, as the crow flies, to the volcanoes of Kivu.

It was a stiff climb to the pass (eight thousand two hundred feet), through which we crossed the dividing range between the Congo basin and the Great Rift Valley; adjoining peaks and ridges rose to nine thousand feet, whilst far away to the north the peak of Kausi attained fully eleven thousand feet above sea-level. The pass itself was full of bamboo. After descending a few hundred feet, to fine high country of vast extent, we were in sight of Lake Kivu, of which we had splendid views, with its islands and indented shores.

We camped at a small village overlooking the south end of the Lake. Far away to the north, at the other end, two of the great volcanoes were dimly visible through clouds of rising smoke.

On the following morning we woke to the consciousness of an ominous silence brooding over the camp. Further observation revealed the unpleasant

fact that our carriers had deserted us. All had cleared out, without even their pay for the previous day's journey. More in sorrow than in anger—because we always were anxious to part on the best of terms with our porters—we set about hunting up fresh men. Soon we succeeded in getting the help we needed; but the last stage of our journey was bad: up and down hill, in floods of rain, with a final drop of two thousand feet to the shores of the Lake. We did not go as far as the Belgian station, but stopped, before reaching Lukemba, at the camp of three Europeans who were at work on a mineral concession. Here we were most hospitably received.

CHAPTER VIII

LAKE KIVU

The Roof of Africa—Drainage area—The Rift Valley—M'fumbiro Mountains—Ultimate source of the Nile—Origin of Lake Kivu—Scenery—Bobandana—Great volcanic eruption—A perilous trip—Scenes of devastation—Kabino Inlet.

THE Kivu country might well be called the Summit, or Roof, of Africa. The country surrounding the Lake reaches elevations of eight thousand feet, with peaks attaining twelve thousand feet, and the Lake itself is nearly five thousand feet, above sea-level. It is the nucleus of a watershed from which the drainage waters flow north and south, east and west.

North of Lake Kivu, the country drains into Lake Edward (three thousand feet) and from thence to Lake Albert and the Upper Nile; in the south, the Rusisi River spills from Lake Kivu and empties into Tanganyika. From the high mountain crests east of the Lake, the general slope is to the east and the country drains into the Victoria Nyanza; similarly to the West, into the Congo basin. The prevalent winds appear to be south-easterly.

No large rivers flow into Lake Kivu, the watershed of which, east and west, lies within fifteen miles of its shores. The Lake itself is very deep: two thousand

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feet and over, in places. Except for patches of sandy foreshore at the deltas of some small streams, the rocky shores and shelving beaches slope abruptly into the Lake; anchorages, therefore, are difficult to find. Occupying a part of the middle portion of the Lake, the mountainous island of Kwidjwi covers an area of twenty-two miles by five. The Lake scenery is superb, especially in the fiord-like shoreline of the south; the climate is good, and there are no fly pests (particularly, no *tsetse*) to trouble one.

The volcanic peaks, north of Lake Kivu, appear to be known to the natives of Uganda and to travelled Swaheli from East Africa as "M'fumbiro." Most of the earlier European travellers (e.g., Speke, Stanley, Grogan) who either sighted these mountains or heard reports about them, make use of that name or some variant of it; and this, too, is the name given to the region by Captain E. M. Jack, R.E., head of the British Commission for the delimitation of the British-German-Belgian boundary. I, myself, never heard the word M'fumbiro used locally. Of the eight largest volcanic peaks, the highest are Karisimbi, often capped with snow, and Mikenno, both over fourteen thousand feet; and Muhavura is very little lower. The only big volcano mildly active, emitting smoke and steam, at the time of my visit was Nyamлагira (ten thousand feet). But, in addition to these, there are numerous smaller cones and craters in the floor of the Rift Valley.

It is to be noted that the two high mountain ranges which form the east and west escarpments, of

the Tanganyika-Kivu-Edward Rift are not volcanic or in any way connected with the volcanoes, which are situated in the floor of the Rift itself; and it is probable that the valley of Tanganyika was at one time—say, ten thousand years ago—continued through this chain of Lakes (Kivu, Edward, and Albert) into the region of the Upper Nile. In the Rift Valley, to the south of the volcanic regions of the M'fumbiro Mountains, there are eruptive rocks round the north of Kivu, and schist and gneiss round the other shores of the Lake; whilst to the north of the M'fumbiro Mountains, round the southern borders of Lake Edward, there are alluvium and eruptive rocks. And, further, it is to be noted that this great fracture system, or Rift Valley—whether produced by folding, due to lateral pressure, or by vertical subsidence—runs parallel with the ridges of the Great Central Range.

My view of the origin of Lake Kivu is that, formerly, it was a valley, which drained north to Lake Edward, but the volcanic upheavals at what now is Kivu's northern end threw up a great barrier across the Rift, causing the valley to become a lake, which then rose until it made its outlet south, to Tanganyika, by the Rusisi Valley.

It has been suggested that the M'fumbiro Mountains are the ancient "Mountains of the Moon," famous as the source-region of the Nile. It is absolutely true that the farthest of all the sources of the Nile is the Njavaronga River, which, taking its rise on the southern slopes of Sabinio, M'gahinga,

and M'havura volcanoes, drains first to the south and then becomes known as the Kagera River, which flows north and empties finally into the Victoria Nyanza. Similarly, the Ruchuru River, rising not more than seven or eight miles north of Sabinio (eleven thousand nine hundred and sixty feet) and Karisimbi (fourteen thousand seven hundred and eighty feet) flows into Lake Edward, and thus unites with the Nile system.

A few elephants frequent the thick bamboo forests surrounding the bases of the larger Kivu volcanoes ; but a more interesting matter, from a zoological point of view, is the fact that in these forests are found the true gorilla, several fine specimens of which have been sent to European museums.

For our journey from Lukemba to the north end of Lake Kivu, we were fortunate enough to obtain the use of an iron boat belonging to the Belgian Government. This was propelled by sixteen men, using sweeps or long paddles from the iron deck ; the rate of progress was about two miles an hour, but none could be made against a head wind. With a fair wind, we rigged up a jury mast and a sail to help us.

At first we passed scores of islands—some very large and inhabited—having excellent little harbours. On the shores of the Lake and on the hillsides we counted at one time twenty-two herds of cattle, with an average of forty to fifty beasts in each herd, and saw sheep and goats in any number. We passed to the west of Kwidjwi Island, where the Lake is wide



LAVA COOLING, KABINO INLET, LAKE KIVU.
(This inlet is now a solid block of lava.)

and free from islands or winding channels. The western declivities of the northern half of Kivu fall steeply to the water; and, as we went north, we had fine views of the great volcanoes Karisimbi, Mikenso, and Chaninagongo. Our little voyage of fifty miles ended at Bobandana, a Belgian station, situated on a hill overlooking a splendid harbour near the north-west corner of the Lake.

At Bobandana we witnessed the eruption of a volcano or volcanic vent situated some six or seven miles to the north of the station. It was preceded by an earth-tremor, or strictly localised earthquake shock, which we were told was severe. Then followed subterranean rumblings; after which fire began to issue from cracks in the level ground, the fissures became enlarged, and lava, stones and ashes were ejected. This eruption had been going on for a fortnight before we arrived; and a cone, six hundred feet high, had been formed: named by the Belgian officials, after a neighbouring village, Katarusi.

At the north-west corner of the Lake, there is a break in the shore-line; and by an entrance not half a mile wide there is communication with the Kabino Inlet—itself, almost a separate lake, some twelve miles long and two or three miles wide. The first flow of lava from the eruption poured into this inlet, filled up a small bay, and, owing to the amount of solid material deposited, caused a strong current of almost boiling water to run out through the passage into the main Kivu Lake. At a later period of the

eruption, another river of lava flowed from the volcano direct into Kivu, cutting off a triangular tract of country containing several villages from all communication save through the boiling water of the Lake. The whole country lying within a segment from south-west to north-west was more or less devastated and destroyed.

We made a most interesting trip to the stricken shore, approaching the volcano as near as was considered safe. We first crossed, in dug-out canoes, the entrance to Kabino Inlet, keeping well out in Kivu Lake lest the water should prove too hot. Indeed, soon after starting, it became so heated that it was covered with clouds of steam. Midway, we encountered a strong current issuing from the Inlet; and this current being checked by a head-wind, a nasty choppy sea made our passage somewhat unsafe: the water being all but boiling, an upset would have had disastrous results. The splashes of water, as the waves lapped in, were unpleasantly hot; and there was a strong smell of sulphur that suggested a passage of the Styx. All things considered, we had a bad ten minutes, and were much relieved on reaching the opposite shore.

We landed, three miles from the burning volcano, and climbed a hill (an extinct volcano), on the top of which was a village. With the wind at our back, we had a fine view of the eruption. Immediately in front of us was a steaming lava field, which had entirely obliterated and filled up a small bay in the Kabino Inlet. The roar of the volcano was cease-

Kina Gongo
12,000 feet.

New Volcano

Lava entering lake

Boiling lake



VOLCANIC ERUPTION AT THE N.E. END OF LAKE KIVU.

less; every few minutes there were loud explosions, accompanied by ejectments to a great height of hot stones and ashes and followed by flows of lava. The crater was about six hundred yards in diameter; and the size of the cone steadily increased, through the violence of the eruption. It was a magnificent spectacle; the piling pillar of steam and smoke, the deluge of fire, and the flow of burning lava over the lip of the crater downwards to the seething waters—a relentless flood that engulfed everything in its passage of nearly two miles.

There were still some inhabitants left in the village, where we stood, watching the destruction of their crops; and some, who had lingered late, were even then clearing out their goods and driving their live-stock away to villages farther off. We were told that, on the previous day, several men, in attempting to cross the Lake, had been overcome by the fumes and had perished in their canoe, which eventually was carried out into the broken water and sunk; and on the very day of our visit three men in a canoe were lost in the same manner.

On our return journey we were careful to avoid, so far as we could, the danger spots. Occasionally, a whirlwind of steam, rising upwards for three or four hundred feet, would whip up a small waterspout from the churning waters; and, at the point where the lava stream entered the Lake, great volumes of steam rose high into the air and mingled with the smoke from the crater, forming clouds out of which came frequent lightning and squalls of wind and rain.

It was a veritable inferno, this stricken corner of Lake Kivu.

I set out from Bobandana, on the following day, in order to buy stores at Goma, the Belgian frontier station on the north-east shore. In large canoes the trip in normal circumstances would not have taken more than three or four hours; but, under the conditions then existing, it was a somewhat risky venture. I took care to cross well outside the small island of Chesanga; but, nevertheless, we were caught in a heavy swell, and, several seas breaking over my canoe, were in imminent danger of foundering. In the end we had to ride with the swell and drift towards Chesanga Island, where I landed. Afterwards, I managed to reach the north shore and get to Goma.

From Goma the eruption seemed to have increased in violence. The column of fire was then many thousand feet high. This made me feel anxious about the return journey to Bobandana, as the water was getting hotter every hour. Moreover, paddling up the Coast, I had noticed that Nyamlagira—the westernmost of the great Kivu volcanoes—had also begun to throw up volumes of black smoke. So that, when again we got opposite to Chesanga Island, we paddled across to it; and I climbed to its summit in order to survey the crossing to Bobandana. It was clear that we had a swift stream of almost boiling water to pass: the wind and sea were good, but much more steam was rising than on our outward journey. Added to which, close to the



KABINO INLET, LAKE KIVU, AT BOILING POINT.

island, we noticed two big upheavals of muddy water, indicating, apparently, a seismic disturbance in the bed of the Lake. I came to the conclusion, therefore, that we had no time to lose; and so we made an immediate start.

The crossing was safely accomplished; but it was nervous work. The water must have been near the boiling-point (I could not bear my hand in it), and the rising steam was so dense that it was difficult to see where we were going. In the great heat I was drenched with perspiration; and when we landed I decided, on cool reflection, that the experience should remain unique.

We left Bobandana with sixty carriers, and had to make a wide détour round the south end of Kabino Inlet in order to reach its western shore. On the way, we visited a new mission station of the White Fathers. Here, twelve miles from the erupting volcano, the water of the Lake was hot—too hot, indeed, for a bath—and the crops were scorched and withered. At Saki, a cluster of villages at the north-west corner of the Inlet, the crops had been destroyed entirely by the ashes, and the banana plantations were laid low. Over all there was a fine deposit of scorïæ, or black cinder-sand, which increased in depth as we went farther north. Large numbers of native houses had collapsed under the shower of ashes.

Climbing a hill, one thousand feet above the Lake, we pitched our camp in a hamlet perched on the crest of the peak. And here we passed the night of

Christmas Eve, 1912. All night long the volcano, five miles away, vomited and thundered, throwing up fountains of fire. The red glow from the volcano turned night into day. Hurricanes of wind and heavy rain bombarded us. Lightning played around, and there were crashes of thunder without end. At two in the morning there was an earthquake; and the tents nearly collapsed under their weight of cinders. When day dawned we were glad to break away from this scene of titanic convulsion.¹

We descended to the level of the Lake and got on to the plains, to the north-west and eventually to the north of the volcanoes, where we camped at a hamlet about eight miles distant. All the country we had traversed was black, and covered with ashes; trees had been withered, birds and small mammals killed or maimed: and—no wonder!—since some of the white pumice stones that fell were two inches in diameter.

From this scene of recent riot round Lake Kivu we passed, on our journey farther northwards, to the lava fields of past devastation, in the country known in ancient times as the Mountains of the Moon.

¹ The sound of these eruptions was heard at Beni (one hundred and forty miles north), at Bukoba (one hundred and ninety miles east), and, like rapid gun-fire, at Pili-Pili (two hundred miles north-north-west). Walikale (one hundred and fifty miles, west) was covered with ash, the prevalent wind being easterly. Many hundreds of natives were killed, mostly owing to their refusal to leave their villages and seek shelter elsewhere.



KABINO INLET, LAKE KIVU ; NATIVE HUTS PARTIALLY BURIED BY ASH.

CHAPTER IX

M'FUMBIRO MOUNTAINS

“Mountains of the Moon”—Mokoto lakes—Elephant hunting—
A native boycott—Ruchuru—Back to Goma.

BETWEEN Lake Kivu and Lake Edward lies that remote country of Plutonic birth, the M'fumbiro Mountains, or “Mountains of the Moon.” We traversed it from south to north, to the Ruchuru plains, and back again by another route to Goma.

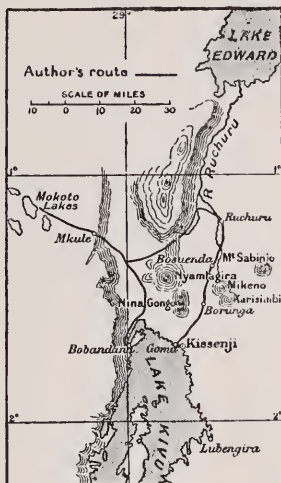
On our way, outwards, on this circular journey, to Mokoto, we had two very hard days over ancient lava, one of which (in order to find drinking water) was to the slopes of the great western volcano, Nyamlagira (eleven thousand feet), which is covered with dense forest. As we approached this volcano, which had been smoking for some days, we found the ground and trees covered with a wet mud that had been ejected on that very day. Our carriers were worn out and apathetic, and we, ourselves, were wet through and chilled: there was no dry firewood, and we had a miserable camp. Here, there was another earthquake, and the rumbling of the new volcano, seventeen miles away, was loud and incessant.

The next day was almost as bad. We walked over old lava fields until we reached the foot of the western side of the Rift Valley, when we climbed up, twelve hundred feet, to a village in the mountains called M'kule, from which we could see the gleam of Lake Edward in the far distance. During the day there were three earthquakes. A small crater, or fumarole, on the western side of Nyam-lagira was throwing out steam; and higher up, near the lip of the principal crater, steam and smoke were issuing at several places. The whole of the Rift Valley in this region is a continuous lava field; in some parts relatively new eruptions have discharged fresh streams of lava over the old. Thus, the lava field reaches right up to the foot of the mountains forming the western side of the Rift.

Walking on lava is sometimes easy, sometimes quite the reverse: it depends on the character of the lava. It is easy to travel over a hard and smooth surface, even with occasional cracks and holes to negotiate; but often it is a jumbled mass of cinder lava, piled up, perhaps, in immense masses; and then it becomes most difficult to find a way across.

The village of M'kule, like all Warundi villages, was perched on the top of a mountain—in this case, over seven thousand feet above sea-level. Here we were out of sight, although not out of the sound, of the eruption on the shore of Lake Kivu; and we spent the first peaceful night for many days past. The earthquakes we had always with us, but the rocking of the tents did not disturb us.

From M'kule we travelled to the Mokoto lakelets (marked too far to the west on Belgian maps) through country which had a rich volcanic soil and rolling hills everywhere. The lakes lie in a local depression, to which we gradually descended, reaching an ancient lava field, old enough to have become partially disintegrated and covered in parts with dense forests. We were doubtful as to the origin of this ancient lava field, being situated so far from the big Rift volcanoes. There was, however, one peak overlooking the lakes that bore some resemblance to a volcanic cone; and we came to the conclusion that it must have been the original source of the lava.



One of the Mokoto lakes was eight miles long, and had several islands in it; the borders, in this and the other lakes, were mostly marshy and fringed with reeds and papyrus. There were no hippos in them, neither were there any fish (or so we were told), which rather points to the lakes being of comparatively recent formation. Four in number, they lie in a depression running approximately north and south at an elevation of five thousand eight hundred feet above sea-level. The Chesanga stream flows into

the largest and southernmost lake ; and all the lakes are connected by riverlets : but whether, as we were told, there is a river issuing from the northernmost lake—presumably, to Lake Edward—we were unable to ascertain with certainty.

From the Mokoto lakes we climbed three hundred feet to a hamlet, where we camped. The country to the west is beautiful. It lies high—between six thousand five hundred and eight thousand feet—and has a rich soil. The great ranges run, more or less, north and south. From an elevation of seven thousand five hundred feet, our view ranged over miles and miles of mountains, partially afforested. While here we spent several days in elephant hunting. The people in the Mokoto district would sell us nothing—neither sheep, goats, fowls, nor flour. They seemed to have no notion of trading, and were pointedly averse to intercourse with white men. Those who came to us were inveterate beggars and loafers : it was not possible to get carriers, short of compulsion. In consequence of this boycott, one was driven either to seize and pay for food or to trust to shooting for the pot.

From Mokoto we rejoined our former route at M'kule ; and, following the ancient lava fields, descended into the Rift Valley. The air became smoky and hazy as we advanced northwards : and for this we were unable to account until we passed the northern limits of the lava field and reached the grasslands of the Ruchuru plains. We then found, as we approached Lake Edward, that we were



THE RUCHURU RIVER; THE ULTIMATE SOURCES OF THE NILE.

emerging from a wet-season country into a dry one, in which the grass was burning in all directions.

Lake Edward is known locally as "Tanganyika," a name which, over a considerable part of Central Africa, means simply "lake" or "marsh." Kivu, for example, is given that name locally. "Nyanza," of course, is a corresponding and still better example of a place-name being derived, by the European, from a native topographical term, or physical feature of the landscape.

A few miles south of Lake Edward, we crossed a stream which our guides called "Mombo": it issues from the lava field, and, after percolating through marshes, enters Lake Edward at the south-west corner. The crossing of this stream was so bad that we had to make a bridge of trees. Before crossing the Ruchuru River, we travelled again over lava fields: but this river marks the easternmost limit of lava flow. We were freely bitten by *tsetse* (*Glossina palpalis*) at the Ruchuru; and the crossing was difficult, owing to the strength and depth of the current.

East of the river, almost all the way to the Belgian station, Ruchuru, we traversed rolling plains covered with villages and game. At the Government quarters we were hospitably received: and here our journey of exploration practically ended. Our return to the Coast took us through comparatively well-known portions of German East Africa and British East Africa, to Mombasa, from whence we sailed for Europe.

As we went south from Ruchuru Station, we made a gradual ascent to the rest-house at Bosuenda, through country of rich soil mostly above the level of the Rift Valley lava fields. From Bosuenda to Goma, on Lake Kivu, a journey of two days, we passed between the magnificent peaks of Karisimbi and Chaninagongo volcanoes. Our highest point was six thousand three hundred feet. This district is crowded with villages, every acre being under cultivation. The natives here had not reached the stage of individual trading; and there were no public markets for native produce, as in most British and German territories.

On our arrival at Goma we found that the Katarusi eruption had ceased: some smoke was still issuing from the crater, but already the peak had been partly ascended by Europeans.

During our stay at Goma we visited the German frontier station at Kissenye, one of the few places on Kivu possessing a sandy beach. Unlike Goma, which stands on lava and has volcanic cones and plugged craters close around it, Kissenye is situated just outside the area of seismic activity, and is backed by mountains that are not volcanic.

Into these mountains it was now our purpose to penetrate, farther south, on our journey across Ruanda to the Victoria Nyanza.

CHAPTER X

THROUGH RUANDA TO VICTORIA NYANZA

Kissenye—Lubengira—The Ruanda country—The Watusi and Wahutu—Kigali—Transport—Kagera Valley—Game country—Karagwe—Chefumbiro—Bukoba—Transit trade—The Victoria Nyanza—Entebbe—Kavirondo Gulf—Kisumu—End of first journey—Home, through British East Africa—Return to Entebbe—Kampala—Matiri—Second journey begun.

KISSENYE is well laid out and has good buildings, well-designed roads, and many trees and shrubs. At the time of our visit, we were told it was the intention of the German Government to make it an important trade-centre for the Kivu districts. There are great possibilities for trade in those parts, the chief drawback being lack of mechanical transport. So far, hides are the leading export: these go down, in thousands, by native carriers from Ruanda and the borders of Lake Kivu to the Victoria Nyanza, whence they are shipped by steamer and railway to Mombasa. As soon as Lake Kivu is reached by a railway, immediate trade expansion should follow.

Instead of travelling by land, along the eastern shore of the Lake, from Goma to Lubengira, we went by water and enjoyed the two days' journey in

canoes. Lubengira is situated at the head of a deep fiord, and is the landing place for a German mission station situated four miles inland. A well-graded road, sixteen feet wide, good enough for motor traffic, connects the mission station with the Lake, seven hundred feet lower; and its gardens were full of strawberries, peaches, apples, and other Temperate and sub-Tropical fruits and vegetables. We saw nothing of the missionaries, who did not come to our camp—possibly because our visit was on a Sunday.

All the western part of Ruanda is beautiful country. The climate reminded one of the milder parts of Switzerland, without the crown of snow. Above seven thousand feet, grass gives way to bracken, in which are many blackberries. Banana groves were seen only in the valleys and kloofs. Streams of cool, clear water were abundant. In the still, bright evenings, within the sound of lowing cattle and bleating sheep and goats, our camps were very pleasant; everywhere there was an air of peace and contentment. Indeed the greater part of Ruanda would be entirely suitable for settlement of European farmers, were it not already so fully occupied and stocked by natives.

Ruanda is peopled by two tribes, or indeed, races: the Watusi and the Wahutu. The Watusi were, perhaps centuries ago, immigrants or invaders from the far north-east—possibly Abyssinia, Gallaland, or Somaliland. They are tall and spare, have good features, and are fairly light coloured; they reminded

us, indeed, of the Somali. As pseudo-aristocrats and autocrats, all cattle and other stock were regarded as their property; and they do practically no work, except to relieve the Wahutu of the fruits of their labour. The Wahutu, on the other hand, are the indigenous inhabitants, conquered, no doubt, by the invading Watusi. They are the serfs, the workers: they look after the stock, grow the crops, and do all the labour in Ruanda; yet they dare scarcely call anything their own. The Watusi regard them as slaves, existing merely to labour for their masters as herdsmen and tillers of the soil. The Watusi have kept their race very pure, and have not intermarried with other people to any extent. Their women are much secluded, and Europeans are shunned.

At one time, the Watusi must have been a strong warlike race; but nowadays they are effeminate and incurably lazy: if a M'Tusi, for instance, has to travel even for a short distance, he is carried by a Wahutu. No longer of any consideration as a fighting race, the Watusi now are of little account.

To them, however, probably is due the credit of introducing cattle into that part of Central Africa. We were told that, according to a rough census taken in 1912, the number of cattle in the Ruanda districts was about two and a half million head. The total number of hides exported during the year was two hundred and forty thousand.

It appeared to me desirable that the relations hitherto existing between the Watusi and Wahutu should be reconsidered, in order that the industrious

Wahutu may be given a better position and a larger stake in the country. A sounder policy would be to allot arbitrarily to the Watusi a proportion of the cattle, and to divide the remainder among the Wahutu; to see that the Wahutu were entirely freed from vassalage, and to compel the Watusi either to cultivate land for themselves and to look after their own cattle, or to make equitable terms with the Wahutu to do this for them. The existing state of native affairs in Ruanda is certainly intolerable.

Our carriers from Goma were stronger and better porters than we had on the Belgian side of Kivu: they carried heavier loads, did much longer stages, and, moreover, they did not grumble. Our average day's march through Ruanda was from sixteen to twenty miles. We crossed the watershed between the Congo and Nile basins on the second day of our journey from the Lake.

Ruanda is not so broken, nor are the hillsides so steep, as in the somewhat similar country lying west of Kivu. Native paths are more numerous and better constructed, too: they go round the hills instead of over the crests. There are few large villages: indeed, one seldom saw more than four or five huts grouped together. Twice we crossed the Njavaronga River:¹ first, in its upper course, where it is a rushing stream; and again near Kigali, where it is a deep, sluggish, muddy river: on each occasion we had to use canoes for transporting the loads. The valley of the Njavaronga was hot and dry,

¹ The Njavaronga is the Upper Kagera River.

compared with what we had previously experienced, and the country was not nearly so picturesque.

There is no made road to Kigali—the trade-centre of this district—from anywhere. The tracks we followed to the Kagera River and on to Bukoba, on Lake Victoria, were simply native paths, on which we met thousands of carriers taking loads of cloth and other goods to Kigali; and we overtook many more carrying hides to Bukoba. It rather surprised us to find no road for wheeled traffic between the two places, seeing that the country is not difficult and a good road could easily be constructed, passable for ox-waggon. Everything is carried by porters—hundreds of thousands of loads in the year—although the land is teeming with oxen. There may be a reason for this apparent want of enterprise, but we could not discern it.

Passing out of the Ruanda cattle country, we entered the “poli,” or wilderness, and reached a broad valley known as *m'buga* (i.e., grassy plain). On the flats there were zebra—the first game we had seen for many a long day. Farther east, the grass is coarse (not being fed over by cattle) and there is stunted forest, with little water. On reaching the south-eastern bend of the Kagera River, we descended from the high plateau to a vast marshy valley which, at some past period, had been a lake. It is now a succession of lakes and papyrus swamps, through which the Kagera wends its course. The crossing was made, in two rough wooden boats, at a spot where the river or marsh is two miles broad.

In view of the large amount of traffic between Bukoba and Kigali, it was surprising not to find an adequate ferry service—say, two steel barges—to cope with it. There was a complete block at the crossing, thousands of loads awaiting their turn. The ferry was run by natives, and was called “the Sultan’s ferry”: which particular sultan of these parts, we did not know.

Immediately east of the Kagera valley, there were practically no inhabitants, and we passed through game country, shooting some topi and reedbuck. From the Nyakabanga heights, on the track to Chefumbiro, we descended to the valley of the Mwisi, where lions were said to be plentiful. The track became better as we proceeded, and was cleared of growth to a width of fifteen feet; but no attempt had been made to free it of rocks, and in most parts it was passable only for pedestrians. In the Karagwe districts, the people we met seemed more civilised and respectful than the Waruanda; and their women were more in evidence. From Kitunguli—near which we passed through a *tsetse* fly belt—to Chefumbiro, we bicycled along a fair road on the banks of the Kagera, which here is a large, deep, muddy river. Chefumbiro is of the usual Ujiji-Zanzibar type: a native township, with Arab stores, a few mango trees, and a German “boma,” or official residence. Thence to Bukoba, we bicycled across flat plains: the road was very good and bordered by a double line of shade trees. The last fifteen miles was through picturesque country,

in which there were many cattle, with grass hills, stony ridges, and banana groves. The population was dense, and the natives seemed highly civilised.

The site of Bukoba is not particularly well chosen. It has not a good harbour, but, perhaps, good enough, as the weather is seldom rough. British steamers, on their way round the Victoria Lake, in connection with the Uganda Railway, called at Bukoba, both on their eastern and western circuit; and, at the time of our visit, the whole of the export trade from Lake Kivu and Ruanda passed through that port. In addition to the transit trade in hides from Ruanda which passes through Bukoba, and which hitherto has been centralised there in the hands of several German firms, a considerable local trade in coffee and ground-nuts has been growing up. In 1912, ground-nuts to the value of thirty thousand pounds were sent away from Bukoba, and about the same value of coffee, all native grown. Very little cotton was then cultivated, the coffee trade being so profitable.

After some days spent in Bukoba, we left in the British steamer, *Sybil*, which had brought Dr Schnee, the Governor of German East Africa, on tour to Bukoba, for Ruanda, Kivu, and Tanganyika. It was very comfortable on board—what with saloon meals, electric light, bathrooms, Indian stewards, and the rest of it—and we felt that, at one plunge, we had got back to civilisation. The weather, on starting, was described to us as rough: but it was mild, as compared to that type of weather on Lake

Nyasa. Voyaging on the Victoria Nyanza is mostly calm-water sailing; and there are only occasional stretches of open Lake to pass through, most of the navigation being among islands or in sheltered gulfs.

The Victoria Nyanza is totally different in its characteristic features to the other great African lakes. There is no really deep water: a steamer can come to anchor almost anywhere, even fifty miles from shore: the deepest soundings obtained are, I believe, forty fathoms.¹ It is a lake which, before many centuries have passed, will have silted up and become marsh, as in the case of so many other shallow African lakes. The depth of water in these lakes is always decreasing: mud deposits grow, and the depth lessens until vegetation and floating reed and grass islands take root; after which the coast line is soon obliterated and the lake gradually becomes swamp. Bays and gulfs, such as Kavi-rondo Gulf, will become unnavigable before very long.

The scenery on Victoria is commonplace—in striking contrast to the grand and arresting views on the Great Rift lakes—and over all there is an air of peace and quiet.

After a short stay at Entebbe—the buildings of which seemed rather makeshift, compared with the solid structures erected in German territory—we went on to Kisumu, calling at various ports on the

¹ The northern portion of Lake Nyasa has depths of over three hundred fathoms. Tanganyika and Kivu are, I believe, still deeper.

way, where cotton, oilseeds, hides and other produce were shipped. Kisumu is situated at the extremity of an arm of shallow Kavirondo Gulf, and is, at present, the inland terminus of the Uganda Railway. The situation of the terminus would be altogether advantageous, were it not that the depth of water in this arm of the Lake—officially charted as twelve or thirteen feet—was in 1913 not over eight or nine feet, below which is soft mud of the consistency of porridge. It is, therefore, only a question of time—and no very long time—before the Uganda line will have to be extended to Port Victoria, or to some other comparatively deep-water bay. The alternative, of deepening the channel of communication through the gulf for a distance of about forty miles, does not appear to be so promising, or in the end so economical, as the substitution of a more permanent port.

And here, at Kisumu, our *safari* from Beira ended. We journeyed home by way of the Uganda Railway to Mombasa.

The journey through British East Africa, or to use its new name, Kenya Colony, is always interesting. Coffee is being planted at various elevations between Kisumu and Lumbwa; but the soil is not so rich in this part of the Protectorate as it is farther south. The finest agricultural country, undoubtedly, lies between Kijabe and Nairobi, at elevations over six thousand feet. Coffee is being planted in these parts up to six thousand eight hundred feet, though probably it does better between six thousand and six thou-

sand five hundred feet. All the high country is quite European in climate, and no doubt will soon all be settled by white farmers and planters. The country between Kijabe and Lumbwa is good for stock. The Athi plains are covered with game, which take no notice of the passing train. It is to be hoped that Government will continue to keep the Athi and Kapiti plains strictly preserved and will prohibit shooting in this natural Zoological Park.

When I returned to the Victoria Nyanza, in 1915, to resume my journeyings northwards, along the Highway of Africa, the world was changed. War—the most ruthless war known to the civilised world—ravaged Europe, and had penetrated into those parts of Africa where German colonial enterprise had found “a place in the sun.” The voyage out to Mombasa, as far as Port Said, was an endless vigil and wary evasion of the submarine pirates who sought their prey along the established steamship routes. Even the Uganda Railway was not free from attacks by German raiding parties on the permanent way and culverts.

Returning to Entebbe, I completed my arrangements and left for Kampala, a run of twenty-seven miles by motor-car through undulating country. Kampala, like Rome, is built on seven hills. It is a thriving trade-centre, with many shops and stores, and two banks: the community is somewhat scattered, and numbers several hundreds of white people, including some ladies. The Lake port for Kampala is Port Bell, six miles away.

I left Kampala in a motor-transport van for Matiri, the farthest point of the Fort Portal road to which motors then ran : a distance of one hundred and sixty-one miles. The intervening country is undulating, with no running water, only swamp beds in the dells filled with papyrus ; and the road is good for a light car. Part of the way we ran through rather dense forests, with many birds, forest flowers and some beautiful flowering creepers. At Matiri, the country opens out, and the hills are more prominent with granite kopjes.

At Matiri, sixty carriers from Fort Portal met me, and my new *safari* (expedition) began.

CHAPTER XI

ACROSS THE SEMLIKI

Buganda—Toro—Semliki River—Over the border—Balesi forest-dwellers—On the fringe of the Equatorial forest—Irumu—Travelling in the Eastern Congo—The “road” to Kilo.

THE road beyond Matiri led through fine open country, with rolling hills, among which there were many banana groves and a considerable population. The people everywhere seemed advanced in native culture; they were very polite and had excellent manners. Local chiefs greeted us on the road with elaborate salutations.

As it was then the end of the dry season, grass fires obscured the distant views; otherwise, from Kagorogoro, we should have been able to see Ruwenzori Mountains. The view from Fort Portal is very fine. Toro—a grass country, for the most part, with very little timber—enjoys a delightful, cool, and equable climate; the elevation is over five thousand feet. The “king” of Toro lives in a two-storey house, built in European style, not far from the *boma* of the Commissioner. In most parts there are immense groves of bananas, good paths, and many cattle.

Leaving Fort Portal, I bicycled eight miles along the road towards the Semliki valley, through country covered with a soft lava rock, in which there are some ancient volcanic craters and a crater lake; and I camped at the edge of the escarpment, overlooking the Rift three thousand feet below. Descending the escarpment by a stony path to the Wassa stream, I went on to the Nyaburogo River, over two thousand feet lower, where the climate, of course, is much hotter and where *tsetse* fly abounds. The Nyaburogo, which I crossed, is only a small stream running through broken country into the Semliki.

The Semliki, which serves as a boundary between British and Belgian territories, is, at the point where I camped, a fine broad river of muddy water, running between firm banks at about four miles an hour. I got my loads and carriers across in two native canoes, and had a hot, disagreeable march across the flats on the Belgian side; but, by climbing fifteen hundred feet to Boga, we got into more open country and a cooler climate. Boga used to be a British station; but, on the completion of the frontier delimitation, it was ceded to Belgium, together with the intervening country down to the Semliki—a region of dense scrubby grass.

There was no sign of game, although near the Semliki flats there were a few old tracks of elephants made during the rains. Stories of elephants in the dense Equatorial forests reached me at Bukima, shortly after leaving Boga; so, taking only a few loads and half my carriers with me, I went off

towards the forests, distant about five miles to the west. On the border of the forest-lands we passed some hamlets of Balesi people: queer little forest-dwellers—the men well-formed and hardy, the women pot-bellied and uncomely. They were not exactly pygmies, however. With them we travelled some miles farther along a path that proved very fatiguing, the forests being too dense and dark for rapid progress. We found neither elephants nor any recent tracks, even after further search, extending altogether over a stretch of twenty-four miles.

During the dry season the dense, dark, "true" forests are pleasant enough, apart from the difficulty of passing through them. In a forest camp it is all shade, and generally there is good water to be had; besides, there are no mosquitoes or flies to worry one. I did not usually pitch a tent, but simply stretched up the "fly" as a shelter. The general altitude in these eastern forest limits is three to four thousand feet, and the slope from the watershed towards the Congo is gradual.

The Balesi took my fancy. They are the real, wild forest people, as yet unspoiled. They live in small clearings, which, owing to the size of some of the trees, are made with difficulty: practically banana patches. They load their women with iron necklets, bracelets, and leg rings. They have no means of describing distance or time, except roughly by sign: e.g., one little man trying to explain how far we were from a certain river indicated the length of his fore-

arm half-way to the elbow. They are splendid trackers: and it is a pleasure to watch them working out a spoor; but they have a wholesome fear of elephants, and, as soon as they catch sight of the animal they are tracking, they bolt back like startled rabbits. They are thoroughly familiar with all forest lore, and nothing escapes their attention. Apart from a small strip of bark cloth they wear no body covering. Calico they do not care for; but they take salt for barter.

The ordinary village camps outside the forest limits are unpleasant. One can get no shade, as the natives leave no trees in or around their villages. Moreover, there are spirillum ticks and jiggers in all the houses.

Our road followed the eastern limit of the forests, passing through tongues and patches of it in places. Along the western side of the Congo-Nile divide, we crossed many streams of clear water—some of them quite large—all flowing to the Ituri. The path from Chitamoro to Irumu ran through entirely cleared country, with no forest in sight.

The station of Irumu is an important Belgian centre, situated close to the Shari River—one of the main affluents of the Ituri. The country all round is open and undulating, the forests to the west being at no great distance away. Cattle do well here, at an elevation of about three thousand feet. All this country west of Lake Albert, up to the present limits of the Equatorial forests, undoubtedly was at one time covered with timber. West of Irumu, almost

to the Nepoko River, is one vast stretch of practically uninhabited forest.

From Irumu the "road" to Kilo, as far as Panya, was an ordinary native path. I had expected to find a good road—this being the main route from Stanleyville to the goldmines—but I was disappointed. The path to Malya-Kizungu, for fourteen miles, led through broken country and forest, and the going was very bad.

Travelling in the Eastern Congo is very slow, working out at an all-round average of less than ten miles a day. The stages are short; and if an early start is made the carriers consider a day's journey is fairly accomplished at nine a.m. This slackness is, I think, due partly to the want of stamina in a banana-fed people, and partly to the recognised system of short marches. Congo carriers receive a payment of half a franc per day; and they try to impose on strangers: my carriers, indeed, wanted me on one occasion to halt after doing only six miles: whereas, in North-East Rhodesia, I have kept up an average of seventeen miles a day for ten days, with the same lot of carriers, and, in German East Africa, from Lake Kivu to the Victoria Nyanza, we did seventeen to eighteen miles over a period of twelve days.

The farther I travelled in Congo territory the more I wondered why Belgian officials, who do so much portering journeying, often for weeks on end, do not select pleasanter camping places than the middle of a native village, in all the dust, dirt, and din—not

to speak of the suffocating heat—of such a spot. In Nyasaland we never camped in villages, but in shady places not far distant, so as to be within easy reach of food supplies. Villagers, themselves, much prefer this, as they do not by any means care to have a large number of strange porters spending the night in their village, and, perhaps, often troubling their women or committing petty larceny.

In the Belgian Congo high prices are fixed for all native produce. For instance: sixteen eggs, for which in Uganda sixteen cents (threepence) is paid, cost eightpence west of the Semliki; a basket of potatoes, costing a penny in Uganda, is sold on the other side at tenpence; and fowls, costing ten cents in Uganda, fetch three times as much in the Congo. On the Irumu road, native food (bananas) costs one penny a day per man, as compared with one-third of a penny in Uganda. For services, too, one has to pay high rates: e.g., portorage at 2s. 8d. a ton per mile. A native asked me three francs to take a letter from Boga to Irumu; and for the same distance in Nyasaland or Uganda one would pay only threepence.

From Malyakizungu I travelled to Kilo, where I was kindly received by the "director" of the Kilo mines and given a rest house.

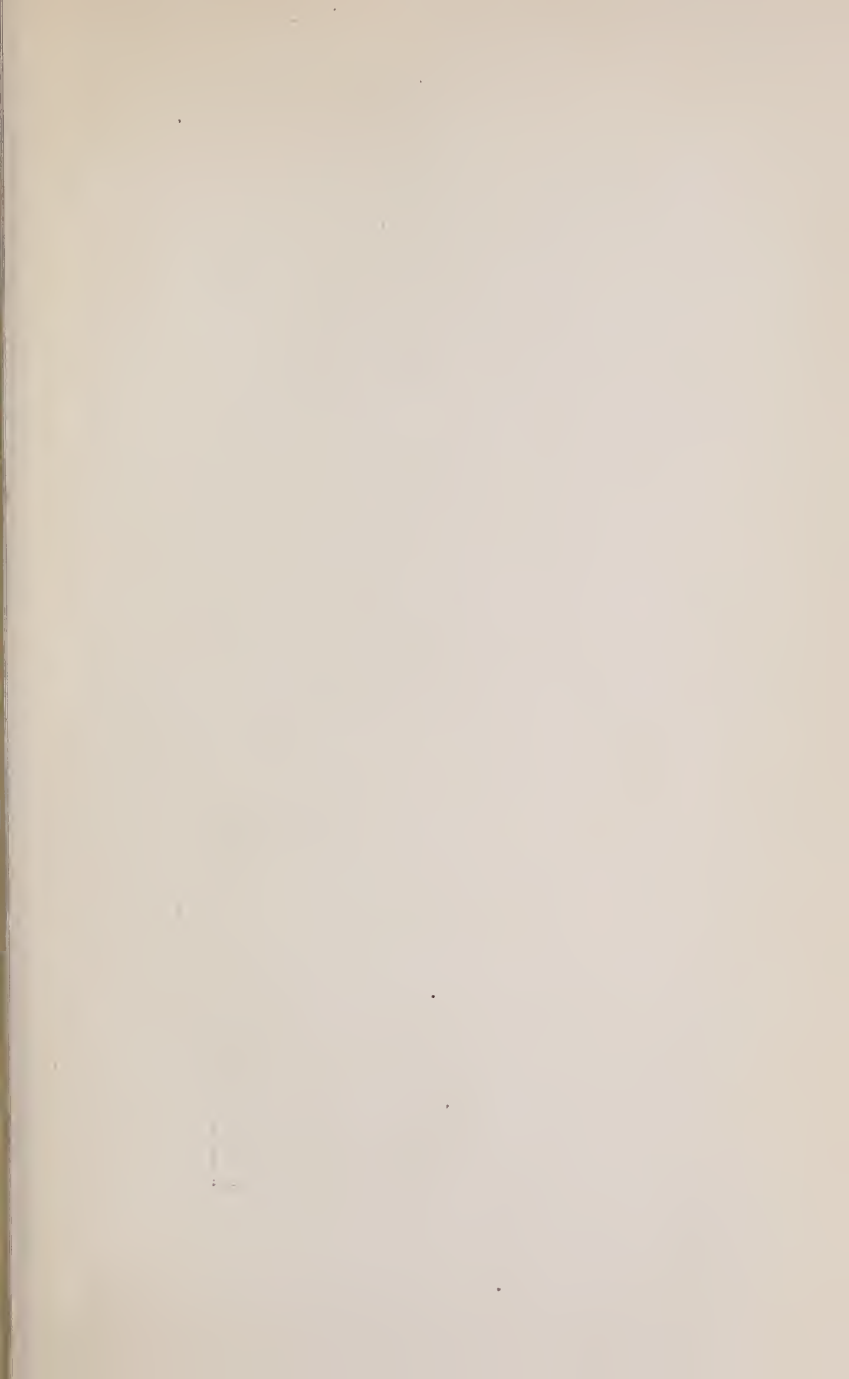
CHAPTER XII

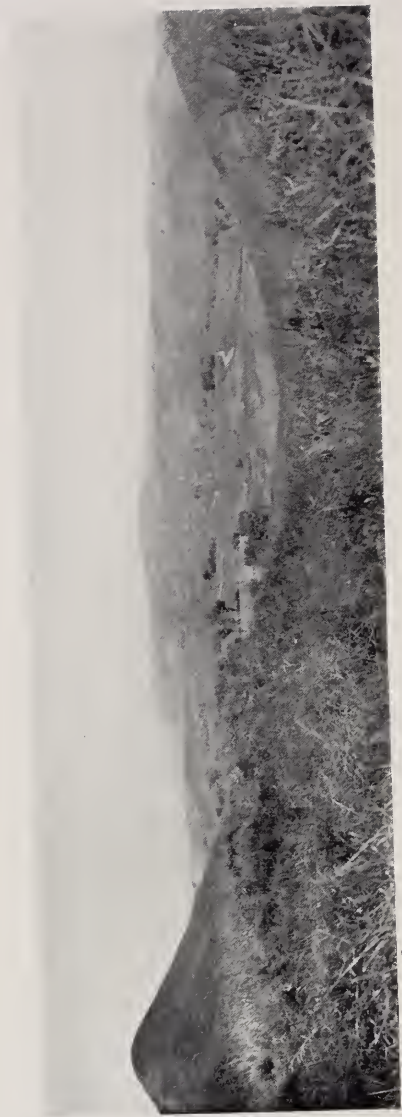
THE CONGO GOLDFIELDS

The Kilo goldfield—Government monopoly: a question of policy—Output—Belgian colonisation—Area of auriferous wealth—Communications: suggested routes to the sea—European settlers—The Land Law—Cattle districts—Mongbwalu—Babiri natives—Arebi—Magombo—Watsa—Kubango—Casual carriers—Vankerckhovenville—A fearsome journey—Gangula—Contrast of climates—The Welle River—Babungula's elephant—Danga—Masambula—Arebi—Native gambling—Aru plateau—The Lubari—Anglo-Belgian frontier—Mahagi—Lake Albert.

THE so-called " Kilo " goldfield was discovered some ten years ago, and has been worked for several years by the Congo Administration as a Government monopoly. The field consists of rich alluvial deposits, lying mostly on a bed-rock of diorite; and nearly every stream contains gold. The metal, apparently, comes from a bluish quartz; and the gold ordinarily got, by sluicing, is fairly coarse. Nuggets up to eight pounds in weight have been found; I, myself, was shown several, weighing three, four, and five pounds. The gold is widely distributed over a country consisting of broken hills and valleys, and there is a plentiful supply both of water and timber.

The policy under which Government alone works





THE LAKE ALBERT—KILO ROAD NEAR KAVALLI, BELGIAN CONGO.

these deposits is likely in the end to prove short-sighted and unprofitable. For the time being, of course, a considerable profit is made on the output; thus, gold to the value of from thirty thousand pounds to forty thousand pounds was, at the time of my visit, being exported every month by way of Uganda and British East Africa. But, on the other hand, looking farther ahead, if the country were thrown open to public enterprise, there would be, within a very short time, a much larger output, improved transport, increased development of farming and other industries, and the settlement of the country by a large European population. Kilo would become an important town, and townships would spring up at Moto and other centres. Thus, indirectly, the Government would make a larger profit than it does at present, through the actual collection of gold by State employees and State controlled native labour, and the country itself would be developed by means of the gold industry.

Kilo and Moto, under the present system, are insignificant places, with mostly native-built houses, and with no hotels or good stores. If the alluvial gold were to pan out to-morrow there would be nothing left to show that whites had ever lived there.

It seems to me necessary to bear in mind the central principle of successful colonisation: to use the resources of a colony to promote its internal development. Experience gained in all new countries tends to show that mineral resources—and

particularly gold—in payable quantities, if thrown open to all comers, create the very bedrock of colonies, whether of settlement or merely of exploitation. The course to be followed is that adopted by all progressive new countries—Australia, New Zealand, South Africa, and the Americas—namely, the promulgation of a reasonable Mineral Law, framed on the lines of those in existence in other gold countries; and the subjects of any nation should be welcomed as settlers.

When I was at Kilo, Government employed some two thousand five hundred natives on gold-washing alone; and there are a number of other centres to the north: it is, in fact, apparent that *the whole Congo territory east of the twenty-eighth meridian is a mineralised area*. The alluvial deposits are so easily worked, besides being generally rich, that this essentially is a country for initial development by individual enterprise: single miners and small concerns. It is doubtful whether even the Australian and Californian alluvial deposits were richer than some of those in the North-Eastern Congo. Little is heard of them, because the present policy does not lend itself to public development and discourages any attempt at public prospecting.

As regards access to the goldfields—and this, of course, is a point of radical importance—the best port on Lake Albert would appear to be Kissenye, whence a motor road has been constructed up the escarpment to the high-plateau country and on to Kilo; and it is intended to continue this road from

Kilo, via Arebi, to the Moto goldfield. No doubt, a railway will come, as soon as the country is thrown open to a more comprehensive and systematic development of the goldfields. Situated in one of the most inaccessible parts of the continent of Africa, railway communication of some sort is inevitable, more particularly in view of the converging lines already in existence or projected.

There are three possible routes for communication with the sea: (1) *west*, to Stanleyville, by the Congo system of waterways, and rail from Leopoldville; (2) *north*, to Rejaf, the head of navigation on the Nile, and thence to Port Sudan or Alexandria; and (3) *east*, through Uganda to British East Africa. It were well for the Congo Government to consider carefully, and in good time, the advantages of each route, so as to have a definitely fixed policy on which to base their system of inter-communication to meet future developments.

The first, or Congo, route naturally would appeal to Belgian opinion, being entirely through Belgian territory: but, on the other hand, it would involve much breaking of bulk and would be extremely slow. The second, or Nile, route (via Moto) goes through British or Anglo-Egyptian territory,¹ and has a much

¹ The Sudan Government have expended large sums of money on the construction of a good road, about one hundred and thirty miles in length, from Rejaf to the Belgian Congo border. Fine bridges, with masonry abutments, have been built; and, when the road is completed, it will offer the best available route at present for the transport of material to and from the goldfields of the Congo. To make this a successful through-route, however, it will be necessary for the Sudan Government to lower

longer system of railway at the business end. The third, or East African route, if it involved the extension of the Uganda Railway from Kisumu via Kampala and Toro, and across the Semliki River, would be the quickest and shortest, besides necessitating no break of bulk. Putting aside any special consideration, the East African route, which would bring Kilo within twenty-one days from Marseilles, would undoubtedly be the best. As to the extension of the Uganda Railway, it is probable that, before long, this will be carried out in any case as far as Kampala (Uganda); and joint arrangements might be made by the British and Belgian Governments to continue the line across the Semliki to the Congo border. Even if all three routes were opened up, the possibilities and resources of the North-Eastern Congo probably would justify such a course being adopted.

There is no reason why European settlers should not take up land in the high country (lying over four thousand feet) in the eastern limits of the Congo territory: the goldfields and their future development would ensure a ready market for cattle, sheep, and produce. This country reminds one much of the Angoniland plateau in Nyasaland, as well as some parts of British East Africa; and the climate is good, with a moderate range of temperature (fifty-five degrees to eighty degrees Fahrenheit). There are no *tsetse* fly and hardly any mosquitoes.

the existing high rates of transport on the Rejaf road and by the Nile steamers connecting with Khartoum.

Perhaps the best part of the plateau west of Lake Albert, for immediate agricultural development, is the country round Mount Aburo, some twenty miles direct south-south-west of Mahagi Hill Station. That district, lying at an average elevation of some six thousand feet, and being within four days' journey from Kilo, would find a ready market for stock and farm produce. All that is required to encourage settlement by farmers and planters is good communications, *plus* a simple and liberal system of land purchase. Settlers will not risk their prospects in any country—however desirable in itself—until these two conditions are provided for, at least in the near future; in particular, they should be able to obtain, without needless delay or expense, an absolute title to their land.

The law at present in force in the Northern Congo, dealing with the sale or lease of agricultural land, is briefly as follows. The Governor-General can sell, or lease, for not more than fifteen years (the lease, however, being renewable) blocks not exceeding five hundred hectares (one thousand two hundred and fifty acres), provided that the land is not occupied or used by natives or reserved by the Colonial Minister. The sale or lease of larger blocks has to come before the Colonial Council. Land sold or leased can be taken back by Government for reasons of public utility, compensation then being paid for buildings and plantations and one-fifth allowed on the purchase price. The sale or lease of agricultural land is subject to five years' provi-

sional occupation, residence, and the completion of certain specified improvements (erection of buildings, cultivation, cattle, etc.). No right to minerals are included in sales or leases of agricultural land. The usual price is twenty-five francs per hectare (eight shillings an acre) when within six miles of a town, Government station, railway, or navigable water; otherwise, the price is ten francs per hectare (3s. 4d. per acre). In the case of a lease the rent is five per cent on the sale price. The right to provisional occupation is granted by contract on behalf of the Governor-General. The extent of blocks of agricultural land situated near the goldfields would be less than that stated above, and the price would be higher.

On studying these conditions it will be seen that difficulties must arise in the case of an intending purchase by a stock farmer in the fine highlands of the extreme Eastern Congo. The area obtainable there would be inadequate for his purpose, since, to raise stock to any reasonable extent, he would require ten times one thousand two hundred and fifty acres or even more. Bearing in mind the fact that at present he would have no market within reasonable range, as well as no mechanical means of transport or communication, the price for agricultural land in such a remote part of Tropical Africa would be prohibitive. It is evident also that the conditions compelling reference to the Governor-General and the Colonial Council would involve delays impossible to calculate, since the Governor-General is resident at

Boma, near the mouth of the Congo, and months, or even years, might be taken up in the negotiations. Under the existing law, therefore, there is little or nothing to attract to the Congo any substantial farmer having capital at his command.

Some of the best cattle districts in the world lie west of Lakes Kivu and Albert, and doubtless they will be developed eventually; but the existing Land Law of the Belgian Congo does not appear to be sufficiently accommodating to attract at present the capital needed for their exploitation. The conditions prevailing in the eastern districts of the Belgian Congo are so entirely different to those in the Middle and Lower Congo, that it would seem advisable to separate them entirely for administrative purposes, and to appoint an independent Governor, who would correspond direct with the Home Government.

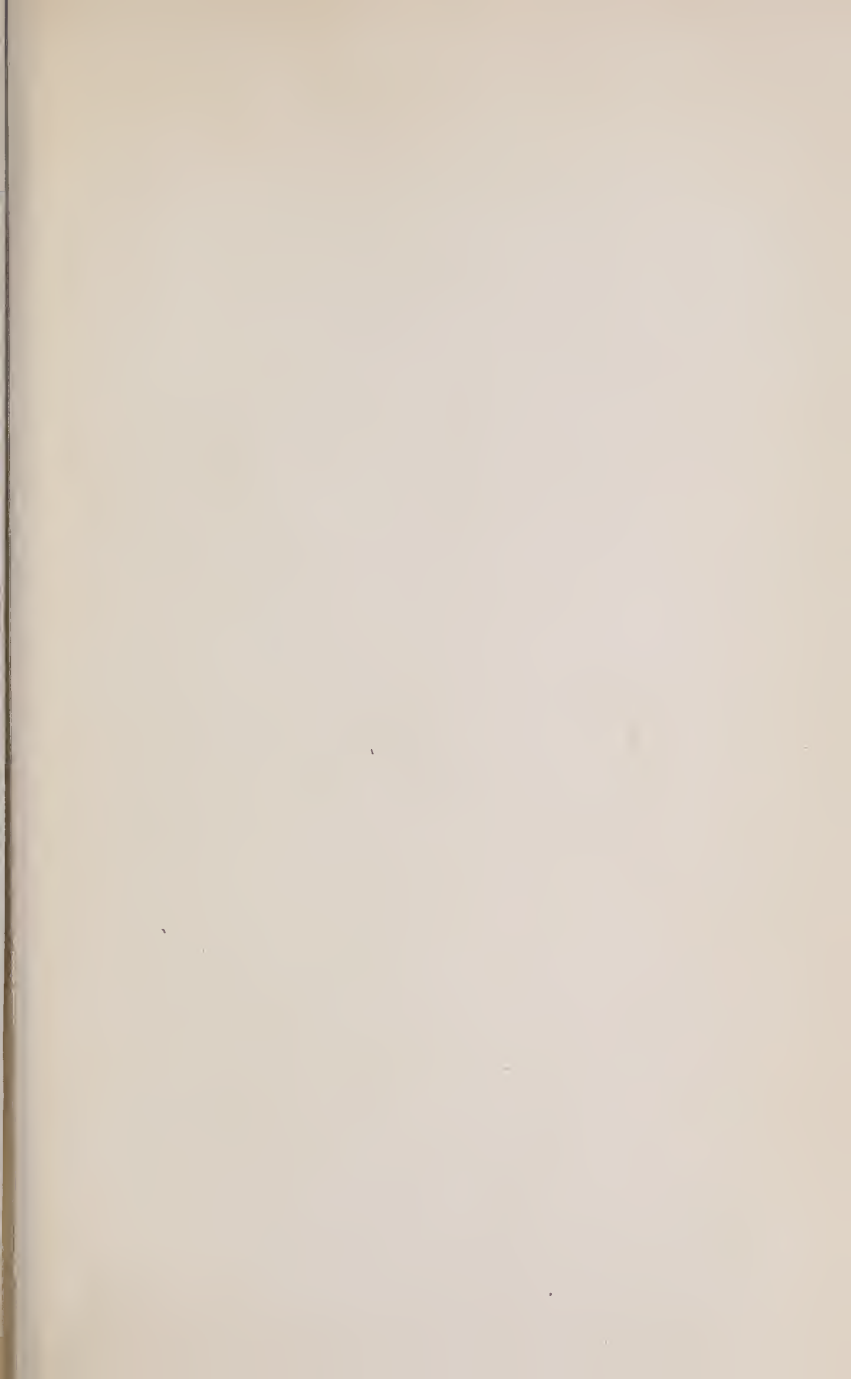
After leaving Kilo I followed a well-graded road, fifteen feet wide, which ran entirely through dense forest to Mongbwalu, another gold-sluicing centre, lying seventeen miles to the north. Not only was the road good and travelling easy, but it was entirely in the shade, and my carriers were not fatigued by sun heat. The country we passed through was neither level nor much broken: it was one mass of rivers and gentle valleys—the streams mostly holding gold, and a “colour” to be got almost everywhere. There is now but little wild life in these more frequented patches of forest; the elephants keep away from the road, and only monkeys and parrots are in evidence.

Mongbwalu has produced much gold; and large numbers of natives are employed there. The settlement itself consists merely of a short cleared ridge in the midst of dense forest, on which are the native village and the houses, built of reeds and grass, of a few Europeans. On the way, we met many labourers returning to their homes after a spell of work at Mongbwalu, all clothed in European garments and carrying boxes of trade stuff. They seemed happy and contented, and undoubtedly they are well treated. They receive ten francs a month, which, for the Central African native, represents good pay.

The manager of the Mongbwalu mines, Monsieur Gregoire, gave me a very interesting half-fossilised tusk of an elephant of small size, together with a small but fully developed tooth, which had been found in alluvial gravels at Mongbwalu, on bed-rock, four feet from the surface. These, apparently, were the remains of a pygmy elephant.¹

From Mongbwalu to Fataki (four thousand five hundred feet), a short march of twelve miles, the path (reduced to two metres, but excellently graded) led through dense forest; after which we passed into the open, along a cleared native track leading for eighteen miles to Mandefu (four thousand three

¹ The tusk and tooth were sent by me, in M. Gregoire's name, to the British Museum. The report I got back was as follows: "The semi-fossilised pygmy tusk and tooth belong to the small African elephant, apparently the existing species. The specimens were from an alluvial deposit. The Department of Geology are glad to have them as sub-fossils."





(1) BABIRI WOMEN ; MANDEFU, CONGO.

(2) A CHIEF ; GANGULA, CONGO.

hundred feet). Mandefu is near the ultimate sources of the Ituri River. The country consists of undulating open hills, with deep afforested valleys, and flowing water everywhere. Some six miles to the east of Mandefu, a steep ridge-shaped mountain rises to about five thousand five hundred feet.

My carriers were not strong, and could neither carry heavy loads for a short distance nor light ones (such as mine, averaging forty-five pounds) for an ordinary march. I found that I got over my journeying without any fatigue by cycling along the level and down-grades, and walking up the inclines. My bicycle boy used to run behind me to pick up the machine whenever I dropped it. When I got far ahead of the caravan I would sit in the shade and smoke a pipe until the carriers overtook me. Good use of motor cycles might be made in the Belgian Congo, if the main roads and paths were slightly improved.

At a group of villages beyond Mandefu, I was begged by the natives to shoot some elephants that were feeding in their gardens. I went after these; but, unfortunately, they were all cows, one of which I was compelled to shoot as she charged us: then they all cleared off, very leisurely. In consequence, I had to camp at the village in order to allow the carriers and a crowd of natives to have their fill of meat.

The Babiri natives, who live in the country between Irumu and Fataki, carry their belongings in a kind of knapsack made of wickerwork, which is

fastened to the back by two shoulder straps of native plaited rope. They are an unclothed and uncouth lot, but amiable enough. The women wear less covering than the men: simply a handful of grass in front and behind tucked under a bit of fibre belt. The Babiri have no cattle, although the country outside the forests would make fine cattle land. Living in the forests, there are plenty of pygmies; but they are somewhat shy of the white man.

At Takalu a white official stationed there told me that there had been some recent trouble with natives in the north, on the route to Arebi, who had raided "good" natives and had killed and eaten some of them.

Between Kilo and Takalu, although there is a fair extent of open country, the only game of which there was any trace were a few elephants and an occasional buffalo; but I saw none. I was told that cattle do not thrive at Takalu station, as there is a fly in the forest which eventually kills them. I saw flies there rather like the so-called "hippo fly" of the Zambezi, but larger: and it is possible that this may be inimical to cattle.

At Arebi I found it somewhat difficult to decide on my exact course to the north. The only well-known route was that to the Moto gold-mines, lying twenty-five miles to the north-west. A local chief, however, who happened to come into the station, proposed that I should go by a path leading a little east of north to his village, Magombo. He stated that from there I could go easily in three days to the site of

the abandoned station of Vankerckhovenville, on the Nzoro River, whence I could get, in three or four days more, to the Faradje-Dungu road. So I decided to take this course.

The chief was a picturesque individual, clothed in coat, trousers, boots, and a wideawake hat with a plume of feathers in it. He was a big man, with an intelligent face. One of his wives was comely and light coloured. Chiefs in those parts always travel with their deck chairs, and with chairs or stools for their wives and counsellors. Magombo was by way of being a big chief.

With sixty fresh carriers, we travelled to the village of Magombo. The new men, who came from a village twelve miles west of Arebi, were a sturdy, willing lot; but they spoke a language which none of my boys from Uganda and Toro could understand. However, as my headman spoke Swahili as well as Bangala, we got on together famously.

Our course, for a period, lay outside the true forest—except the tongues which run up every stream—and, for the first time since crossing the Semliki, we entered “open bush” country, of which there is so much in Nyasaland—i.e., small trees with grass of moderate height.

At Magombo's we found there was a perfect rage for deck chairs, made out of plaited basket work in place of canvas. The natives both bought them and made them. Every afternoon, in the village “square,” there assembled, reclining in their chairs, about twenty village notables, attired in European

costume, who discussed local affairs and the gossip of the district. These were men of substance, for they earned much money in the Moto and Watsa gold-mines, only one day's journey away. The moon being full, the villagers danced and drummed at night until eleven o'clock, when the bugle sounded and they all turned in.

Magombo, himself, was most amiable and well balanced. He kept up considerable state. His men approached him with a military salute, which he returned in correct style. The salutation among ordinary folk was to shake hands when they met. Their somewhat casual manners with Europeans, or anyone accustomed to the respectful behaviour of the Waganda and Nyasaland people, at first impressed one unfavourably; but, after a time, one saw that no harm was meant and that they only displayed the manners expected of them.

From Magombo's we went on to Watsa. There was only one white man in this mining camp, and, as the stream and creek beds in the neighbourhood had been nearly worked out, he was preparing to move on farther afield. Some of the gullies were very rich in gold, and new deposits were continually being found. Round Watsa the country is broken up by deep gullies and covered with dense forests, the rest being open country with high grass and reeds. Just north of the station there are two peaks which look remarkably like volcanic cones; but nothing was known there of ancient lava.

At Kubango's village, one day's journey from

Watsa, I tried to obtain information about a route from Vankerckhovenville to the north. The chief, himself, could not understand why I would not go to Faradje (east) or Dungu (west), as the path to each place was good. After a good deal of discussion and attempted explanation, it dawned on him that I meant to go north; and he then said he would find me a man who knew the country. Our talk was frequently interrupted by people coming to ask Kubango questions or to submit trifling matters for settlement. This is one of the petty annoyances of travel, especially when one's time is short. A native does not consider that there is "a time for everything"; and a big chief's time seems to be much taken up in settling disputes between his numerous wives. Happily, Kubango had only twenty.

My carriers from Arebi were a queer, wild lot. They behaved, as a rule, well enough; but during the night at Kubango's they suddenly started a tremendous hubbub: shouts and yells, amidst the blare of trumpets. I really had to have a *shauri*—a little talk—about the matter on the following morning. These natives, being well disposed, only want a little firmer handling at times than they are accustomed to get. Their manners towards whites were appalling. They lolled in their chairs with hats on, and pipes in their mouths, while a white man passed by, and hardly moved out of his path. That may seem a small thing: but it is an indication of the native mind and innocuous only so long as things go smoothly. The word "prestige" means as much

in Africa as in India, although maintained in a different way: and it is an economy of effort for the governing class to preserve it.

Vankerckhovenville is situated on the left bank of the Welle, Makua, or Kibari River (it is known by all three names, as well as by others), and has lost any attractions it may have possessed when used as a Government station. The old houses were still standing, and some of them were occupied by my men. There were plenty of lemons, guavas, papayas, limes, and Liberian coffee; the few mango trees were not then in bearing.

No direct paths leading north from Vankerckhovenville, we had to follow an old route along the north, or right, bank of the Welle, extending north-west for fifteen miles. The whole country between the Welle and the Dungu is dried up in February: there is no water in the stream-beds, nor animal life, and everything is burnt. It is not really a game country, although game is to be found there towards the end of the rains. We saw many fresh tracks, however, of white Rhino, and I could have shot them if there had been any object in doing so.

In the open country just south of Vankerckhovenville I saw, on our return south, a waterbuck and bushbuck. I shot the former, for the men's food, and one of the latter for the kitchen. The bushbuck was what I consider a long shot—three hundred and fifty yards—and I took it, not expecting to get the beast. The carriers had much talk about it, as

they had never before seen anything shot at long range.

Finally, we reached a collection of villages under a chiefling named Gangula, and then struck north-west with a guide who undertook to lead us to the Gangu River, which is a tributary of the Dungen. It was a fearsome journey. We got into a perfect maze of half-burnt grass; and anyone who knows Africa understands what that means: the stalks fetter one's feet, lash the face, trip one up, bark the shins, and make one's passage a martyrdom. At midday, and for five hours thereafter, the heat was intense. The nights, too, were hot, and mosquitoes rampant. Being the wrong season for game, anyway, I decided to return to pleasanter climes—to Kubango's and Magombo's districts—where forests are close and the weather comparatively cool. Having reached the village of Nadifu, near to the Faradje-Dungen high road, I turned back on 1st March.

The banks of the Gangu River form what would seem to be fine ground for game—short grass, swamp, and a good supply of water—but not a beast of any kind was to be seen at that season. All the country north of the Welle is open bush: i.e., grassed ground, with stunted trees scattered throughout, the annual fires burning off the grass more or less thoroughly. There is no Equatorial forest there at all, neither is there the immense growth one finds farther south of twenty-foot reeds. The people, however, are much the same as those farther south. Up to the northernmost limits reached by me, on this

journey, there were few A-Zande: a people who live more to the north-west, and who are superior in appearance and intelligence to most of the natives of the Eastern Congo. That is not saying much either way, because the latter are low in the scale of humanity, and the former, although lighter coloured and warriors, are reputed cannibals.

We were glad to get back to Gangula, on our return journey, fairly exhausted as we were by the oppressive heat. The contrast, in the early months of the year, between the climates north and south of the head-waters of the Welle, considering their proximity and the relief the land, is really extraordinary. Ten miles south of the Welle, one finds patches of forest, numerous streams of clear water, plenteous rain, unburnt country, cool nights and moderate heat in the daytime, with no mosquitoes: but only a few miles to the north of the River, there is no forest—only stunted, scrubby trees and a wilderness of half-burnt grass—no water, no rain, hot nights and burning days, with mosquitoes and hosts of flies to torment one. There is no very clear reason to account for this difference, except, it may be, that the northern parts lie closer—and, indeed, in proximity—to an area of higher mean annual range of temperature (i.e., the difference between the coldest and the warmest month) and just outside the central zone of highest relative humidity.

Only those who have wandered in the desert or journeyed in sterile regions can thoroughly appreciate

the joy of real shade from a pitiless sun. But Eastern Congo natives would appear to dislike—positively dislike—shade. At first I thought it possibly was due to carelessness that no shade trees were to be found in their villages: but no!—it was the invariable practice to cut down every kind of tree that offered any degree of shade in or close to settlements. It was always difficult, if not impossible, to get a shady place to camp in: but I found such a spot, among thorn trees, only a few hundred yards from Gangula. My personal boys camped with me, whilst the carriers slept in the dusty village.

Gangula, himself, and most of his men were away when we got there. They were tracking down a wounded white rhino. This beast is slow, stupid and inoffensive; and it is a wonder there are any left; the natives do not fear them, as they do the pugnacious black rhino. I believe this particular corner is about the only spot in Africa where the white rhino is to be found now, or at least many of them together; and, just north of the Welle, they are fairly plentiful.

From Gangula's our mean course was south-east; and eventually we reached the *bala-bala* (cleared route, or path) leading from Faradje to Vankerckhovenville. After days of bad going, it was a relief to get on to a path again; also, to have thunder and rain to clear and cool the air. We were in the height of the dry, hot season; and, throughout all this inhospitable country between the Welle and the

Dungu Rivers, we saw no head of game except two wandering water-buck not far from the Welle. From Kabishula we made an easy march to Vankerckhovenville.

Both the Nzoro and the Welle Rivers, which we crossed, are known under a variety of names both by Europeans and natives: Welle, Kibali, Nzoro, Kibbe, Arebi, etc. The two rivers unite a mile or two below Vankerckhovenville. The northern branch generally is indicated on maps as the larger river: this, however, is contrary to fact. The larger river is the southernmost, which should be known commonly as the Welle. The northern branch, or arm, should be called the Nzoro, the name by which most natives recognise it. The Welle bifurcates again near the mining station of Watsa, the north-eastern arm being the true main stream (Welle), the south-western the Arebi.

At Watsa, an excellent suspension bridge, made of sawn planks, has been constructed over the Welle by a clever engineer; it has iron bars and iron wire, and is a very creditable piece of work. The supports for the suspension consist of thick squared mahogany posts sunk deep into the ground. We appreciated this bridge after our experience of crossing the Welle and Nzoro—sixty men and fifty loads—by means of a rickety canoe, an upset of which would have spoilt all my journey.

At Kubango's, I spent some days' shooting, and secured several elephants. One of these got away, wounded; and I feared I had lost him: but one day,

hearing the distant sound of gunshots, we guessed it was some of the people of a chief named Babungula who had located my bull and were trying to secure him—as well as the meat and ivory, to boot. On reaching camp, I heard that such indeed was the case. I, therefore, sent my boy, Juma—the distance being somewhat far—to ascertain the facts; and gave him my .333 Jeffery to finish off the elephant, if found alive. On the following day, I went over, myself, and learnt that Juma had succeeded in killing the bull after an expenditure of fifteen cartridges. Babungula's people, however, claimed the elephant, and the ivory, maintaining that it was not my elephant but one which was sick “of itself.” In the end, I decided to go to Babungula's village to settle the matter, and had to travel west about fourteen miles.

Babungula is an A-Zande chief, superior to the ordinary Congo native, and quite intelligent; but, with the Government officials, one of whom I met there, he bore the character of being rather a bad lot: independent and cheeky. When he arrived at the town, the day after I got there, he was clothed in breeches, shirt, Homburg hat, boots and—if you please—gaiters: a real sportsman. As I did not wish to have any dispute over the difference with him, and in any case intended to shoot for a few days in his country, I made him a present of the two tusks, which were badly cracked by native bullets; and we settled the matter in this way without raising any “question.”

But I saw rather more than I wanted of Babungula. He, unluckily, professed great friendship for me, which was expressed by the length of his visits, when he generally "asked for something," and especially "for a little whisky." However, we got on well enough together, if better apart.

Few of these local "sultans" in the Eastern Congo have large numbers of people. One with two thousand subjects is regarded as quite a big chief; and his power over them is absolute. Government leaves most local and tribal questions to him, for settlement, thus saving time and trouble: and, with a reliable chief, this certainly is the best method. In our own possessions—as, for instance, in British East Africa—we sometimes err, perhaps, in the opposite direction. Having broken the power of local chiefs, our magistrates have to spend far too much of their time in settling trifling, often merely domestic, questions that were better left to the headmen.

After leaving Babungula's, we went by rather a roundabout route to Danga's, another chief whose territory lay to the south-east. Danga and I became great friends. He was an unassuming native, with pleasant manners. His village was in a clearing of the true forest, close to the confluence of the Moto and Arebi Rivers. From Danga's we went by easy stages to Magombo's, by way of Masambula, one of the gold-diggings near the Watsa field. The road to Masambula was fifteen feet in width and well graded; if the bridges had been

stronger, it would have been open to any form of motor traffic.

As far as Masambula, and for some miles beyond, we were in splendid forest. Nothing is pleasanter than travelling in these grand forests, when the road or path is good. The big tree trunks run up straight, without a branch, for a hundred feet. Mahogany is plentiful, and there are many other valuable timber trees. It is notable that nearly all the Congo gold-mining centres are in forest. Each centre of the industry is a nodal point, from which cleared paths radiate in many directions, giving access for labour and supplies.

Magombo received me as an old friend, with the usual courtesies on both sides. He gave me good eating bananas, ripe plantains, fowls, eggs, and palm-oil; and I presented him with printed calico and other gifts. He and his people were never tired of gazing at the tusks of the elephants I had shot. He was keen on going out with me after elephants: so I agreed to let him use my second rifle. The next day he succeeded in shooting one—not much of a specimen—and he fairly beamed with delight.

Several hundred oil-palms, many already in bearing, were planted round Magombo's village. The introduction of this tree into the upper valleys of the Welle has been an excellent measure on the part of the Congo Government. All the more important sultanis have taken up its cultivation, and many of them now are obtaining a plentiful supply

of oil—an article which the native loves. They may need it, perhaps, because Magombo's village was the worst place I have come across in Africa for sand-flies: a veritable pest at sunrise and sundown.

On the way to Arebi, we passed a number of fresh elephant tracks; and near the station I shot some good bulls. At Arebi I paid off my old carriers, who returned to their homes well satisfied.

I was unfortunate, on this expedition, in having none of my old Nyasaland boys with me. It is always an advantage to have a personal following: men who have no particular sympathies with the ordinary carriers and whom one can depend upon in such matters as collecting information, their interests being more or less one's own. My "personal staff" comprised two Waganda from Entebbe (cook and tent boy) and four Toro boys, all rather useless. The main objective of my Toro boys was to make for villages and food and have as short stages as possible, game being a secondary consideration with them. I do not care for Swahili servants, although they are better than Waganda; and I had no *safari* headman. A good headman relieves one of many burdens on an expedition in East Africa, but such are few and far between.

As our stages were short, my carriers had an easy time; but there was quite an epidemic of pneumonia among them, and one of them died of it. They were great gamblers. They gambled with the proceeds

of their sale of elephant meat, which they sold in the villages we stopped at. So long as they had a five or a ten-centime piece left, they went on gambling. The game seemed to consist of one man throwing down a number of pebbles on a mat, some of which were picked up quickly by his opponent, who threw down more: but how the chance was decided, or what it depended on, passed my comprehension. All natives in the goldfield districts have money, earned at the mines. They paid as much as tenpence a yard, local value, for unbleached calico: this was worth threepence in England and, perhaps, fivepence in the Congo. They were very fond of English tobacco, and constantly asked me to sell some to them.

Obtaining seventy fresh carriers at Arebi, I went east to Labani, mostly through forest. After Labani the route was bad and extremely hilly; in consequence, the carriers became exhausted, especially those couples carrying the heavy tusks, weighing ninety and eighty pounds. From Duoto, I took a mean course, about north-east by east, making for the Belgian station at Aru, which is situated in high open country north of Mahagi—almost on the Anglo-Egyptian frontier. It was impossible to strike a direct route from Arebi to Mahagi, as there were no paths, and one cannot travel in the Eastern Congo as one does in Nyasaland, by taking a bee-line through the bush, on account of its denser character. On the way, one of my men, who was carrying a large tusk, fell and

cut his calf severely—the hollow end of the tusk making a deep and jagged wound: and I had to have him carried in my hammock until we got into the camp and I could attend to him.

It is a curious fact that, in all this part of the North-Eastern Congo bordering on the forests, there are no vultures. Hawks there were, but none of the birds of prey one sees in most parts of Africa. I am inclined to attribute this to the absence of ordinary game. Thus, when an elephant is killed, even in an open plot of ground, no vulture appears, no marabout, nor other carrion-eating birds. I shot several elephants at Garu, where they were plentiful; but between Garu and Lake Albert I had little or no shooting of any kind. One day, we saw large numbers of monkeys in a patch of forest; these were Colobus, called locally *Mbega*, and another brownish one called *Makako*. There were some large beasts, too, called by the natives *Sokwe*; but I think they were chimpanzee. After passing Nangwatala, going east, true forest ends.

We were then in the valley of the far Upper Welle River, at an elevation of three thousand four hundred feet. On this route the sultanis have very few people, as the local natives do not recognise any chiefs and are "at war" with Magombo and his sub-chiefs. Magombo, whose influence is widely felt, has more power than any other chief I visited. Nangwatala and Waregga are merely small locations, where the chiefs and their wives live. I doubt whether either of them has a thousand "subjects."

We were told that the natives of all the country between Nangwatala and Aru were at war with the Colonial Government. There had been no actual fighting, I was given to understand; but the natives refused to pay taxes, and cleared out when any white man appeared.

The location of Waregga is seven or eight miles south of the Welle. From Waregga, I went to Kandi, another small location south of the Welle. Although the country seemed ideal for game, we saw none: this may be due to the fact that, in consequence of deforestation, there has not been time for game to become established. Our mean course from Waregga to Kandi was, roughly, north-east. The course of the Welle is not correctly laid down on any English map I have seen.

From Kandi, we crossed the Welle—which, even at this elevation, is a river sixty yards wide—and climbed gradually to the Aru plateau (over four thousand feet). Here, in the disaffected districts, we were unable to buy food: the Lubari simply bolted, when I sent three men with salt and money to make purchases in the hamlets. Two hours before reaching Aru, we passed the town of the chief Zombo. This is quite a large settlement. Zombo, himself, came from Faradje or Aba; but his people are all Lubari. He was dressed in European clothes and travelled in a seat on two poles, carried by his men, and followed by an armed retinue of five or six guards.

Aru is the centre of a district full of cattle of the

humped variety. From the station (four thousand five hundred feet) several cleared paths start: one, direct to Faradje; another, to the gold-mines at Watsa, Masambula, Tawa and Moto; a third, to the Kilo goldfield. At Aru, I was kindly received by the *chef-de-poste* and given a house with a compound as well as houses for my personal boys. The Arebi porters simply revelled in their double ration of *posho*.

The Aru open plateau is, of course, much cooler than the country near the forests, but it swarms with common flies—perhaps due to the large number of cattle. The herds are healthy and free from disease. Belgium has a fine cattle country in this plateau, which, doubtless, will be made use of some day; whilst the climate is healthy and pleasant. The *poste* is close to the Anglo-Belgian frontier; and there is a British station only three or four hours away. From Aru to Wadelai is a ten hours' march.

After leaving Aru, going south, we ascended gradually to five thousand feet. All this high country is fairly thickly populated by Lubari, whose small villages are scattered over it. The Lubari are careful cultivators. They are not raised on bananas, but live mostly on meal and grow various grains. Not being under reasonable control, I found them an aggravating lot. There were always difficulties about obtaining food for the carriers: the villagers simply disappeared rather than sell their foodstuffs—not to speak of their cattle, goats, and

sheep—at a good price. It would seem that they wish to be left alone, and not to have any dealings with Europeans. The people—who are, physically, a finer race than the ordinary East Congo native—are known under several variant names: Lugbari, Lubgware, as well as Lubari. Their huts are beehive in shape; and the villages are small and dirty.

Our route from Aru followed, more or less, the Anglo-Belgian frontier from north to south. The path was poor: either completely overgrown with grass, or hoed so recently as to be more like a ploughed field. We had constant rain all the way to Mahagi, with many violent storms. The average elevation along the frontier itself must be fully six thousand feet, as we were on a lower level. Here and there were grassy knolls, reaching six thousand five hundred feet, or more. It is curious to note that, whilst on the levels of three thousand five hundred feet, or thereabouts, near to the forests (where there is much long grass, reeds, and patches of pure forest), there were no mosquitoes; up in the high country (where there is only short grass and but few trees) there were plenty.

I did not enjoy this portion of my journey on account of the abominable weather, lack of food, and the unsatisfactory attitude of the natives. Possibly they meant no harm; but they were independent to the limit of impudence. At first they refused to give me houses for my men and their loads. Their young men and boys, who were fond

of blowing long horns, crowded round my tent and made a horrid noise. Others blocked the entrance to my tent, in mobs, shouting and talking. But when I told the headman that I wished to be quiet, and would like these people to go farther off, he at once sent them away. So, perhaps, they knew no better.

We passed close to the northernmost of several peaks, of over six thousand five hundred feet, which I took to be Mount Speke, Mount Junker, and Mount Schweinfurth; and the next day we arrived at Mahagi Hill Station—the Belgian Customs post for the port of Mahagi (Lake Albert). Here I was received most hospitably by the *chef-de-poste*, Monsieur Victor François, and his wife. The station was a model of its kind: healthy herds of cattle, flocks of sheep and goats, unlimited quantities of excellent butter, cream and milk, vegetables and fruits, and many European flowers.

After passing some pleasant days at the Station, I went down with Monsieur François to Lake Albert in order to catch the British steamer, which took me across to Butiaba, the only good harbour on the eastern shore. The road to the Lake was fairly good; but, as the journey took eight hours, we passed a night on the way at a mission station of the White Fathers, where they have a fine place, with plantations of coffee, cocoa, and many fruits and vegetables.

At Mahagi Port the Station buildings overlook the Lake. The place is supposed to be extremely

hot, and on account of mosquitoes, almost unbearable; but, when I was there, it was cool and pleasant.

The run across Lake Albert, in the paddle boat *Samuel Baker*, was uneventful.

CHAPTER XIII

THE UPPER NILE

Butiaba—Bukimi—Masindi—Impressions of Uganda contrasted with British East Africa—Lake Kioga—Jinja—End of second journey—Home; and back to Egypt and the Sudan—On the White Nile—The *Sudd*—Rejaf—Aba—Return to Vankerckhovenville—Shooting and collecting on the Welle and Kibali Rivers—An accident—In hospital at Yei—Return to Rejaf—On board the Government steamer *Amara*—Shipwreck—Return to Khartoum, and down the Nile—End of third journey.

AT Butiaba my *safari* practically came to an end, as, thence to Mombasa one travels by motor-car, train, and steamer. There was, however, a stretch of eight or ten miles from the port on Lake Albert to the crest of the escarpment east of the Lake where the road had not then been completed; and this I covered on foot. At Bukimi, on the lip of the scarp, I found a motor-van, with a native driver; and in this I travelled for five hours to Masindi.

All along the road were coffee plantations, mostly about three years old. How these planters expect, under present conditions, to be able to grow and export coffee at a cost that will yield a profit in the European market, I do not understand: the rates of

transport are at present so high that about thirty per cent of the actual home value of the crop is eaten up by freight alone. Exporters have first to send their crop by motor-van, via Masindi, to Masindi Port; thence, by steamer on Lake Kioga, to the Busoga Railway running to Jinga, Lake Victoria; thence, by steamer to Kisumu; thence, by rail (five or six hundred miles) to Mombasa; and, finally, by ocean steamer to Europe. However much the local Governments may do to obtain bedrock rates for their planters, railways and steamers cannot be run at a dead loss, and must charge normal rates for freight. It is, however, to be hoped that everything possible will be done by the Governments of Uganda and British East Africa, as well as by the shipping companies, to assist these pioneer planters in Central Africa. Possibly, too, the Home Government may come to their aid in order to support a British industry in its initial stage of development.

The road from Butiaba to Masindi is excellent, and the surface good. The motor-vans in use travel slowly, of course; but quite an ordinary car will cover the distance of thirty-eight miles easily in an hour and a half. The elevation of all this part of Uganda is approximately four thousand feet. The soil is rich; and the climate, though distinctly tropical, is pleasant.

Masindi town is well situated in an extensive shallow basin ringed with low hills; and there is a small European population. The settlement, which consists of the houses and establishments of Govern-

ment officials, traders, and missions, is becoming a trade and planting centre. There are some good stores, where most European tinned goods can be purchased. Health conditions are good; and, although there was no hospital for Europeans when I was there, some of the missions having establishments in the country did good work in that respect.

In Uganda the various missionary societies have not divided up the country into spheres of interest—as in Nyasaland and some other parts of Africa—and, in consequence, one finds the different denominations (which, naturally, confuse the native mind) all crowded together in a single district. Under such conditions, circumstances may and do arise that create rivalry, jealousy, and friction. This is to be regretted, since the remedy is so simple. The Uganda missions, in the early days of pioneer work, met with notable success, and even recorded the fact of native Christians dying for their faith.

From Masindi township the high country in the Congo Colony west of Lake Albert, about eighty miles distant, is distinctly visible in clear weather. This suggests a regular heliograph service, with a transmitting station at Mahagi, working with a telegraph line to Butiaba, or with Bukimi, on the escarpment, where the wire to Mombasa is tapped. As things are, the North-Eastern Congo is without any means of rapid communication with the outer world. Thus, the important gold-mining centres of Kilo and

Moto might, at small cost, be brought within twenty-four hours helio-telegraphic communication with Europe.

Uganda gives one the impression of being a thriving and prosperous colony. Europeans are busy with their plantations and industries; the natives are well off and contented. Planters pay what seems quite full value for their land, considering the distance from the nearest seaboard. I was told that as much as eight rupees (10s. 8d.) an acre is given. Moreover, for Central Africa, labour is not excessively cheap; roughly, including food, eight shillings a month: and the cost is likely to rise. With the high charge for land and the still higher cost of transport, I fail to see any inducement to planters, to invest capital in the cultivation of coffee on the heights overlooking Lake Albert. It is, however, probable that before long the cultivation of cotton will be taken up by white planters, as it should give better returns at current prices, as well as affording a quicker yield than coffee.

Between Kisumu and Mau there is an astonishing development by natives, and a vast amount of cultivation by the Wa-kavirondo. This north-west corner of British East Africa belongs more properly to Uganda. It is interesting to compare the two Protectorates: the contrast is striking. Uganda, full of natives of a very progressive and enterprising type: British East Africa, without a large native population. Uganda, by nature a country for native development, and tropical: British East Africa,

mostly (along the railway line) a high, cold country more suitable for white colonisation. At present, development by whites in British East Africa is slight, as compared with the remarkable results obtained by natives in Uganda. It is, indeed, surprising to note how much is being done in Uganda, and in ever increasing quantities, by the native cultivation of cotton, coffee, ground-nuts, and maize. The natives, instead of taking up work for Europeans, prefer to develop the country for their own account. Uganda, in short, eventually will become a great exporter of native grown produce, both tropical and sub-tropical.

At the time of my visit the transit (motor-car, steamer, train) service from Lake Albert to Mombasa was divided up into sections, under separate controls; and, therefore, it was impossible to book through. Goods had to be weighed at Butiaba and booked to Masindi; then again, the same process to Masindi Port; and ditto-ditto, Masindi Port, Jinja, Kisumu, down to Mombasa—all of which seemed a waste of energy. I sent off my loads in a van from Masindi to Masindi Port, and followed the next day in another, to catch the Lake Kioga steamer. The drivers of these vans are natives, and those coming under my observation were good and careful men. The journey by motor-van, between Masindi and Masindi Port, takes about four hours; the road is good, and there is bush all the way, with no villages or cultivation.

Masindi Port is almost the northernmost point on

the Victoria Nile to which steamers navigating Lake Kioga can go. It has merely a landing wharf and a tin office. The Nile at Masindi Port is a deep river with a sluggish stream, fringed with papyrus, and about a quarter of a mile in width.

The western part of Kioga is an immense marsh, rather than a lake. No doubt, in comparatively recent times it was all open water; but now it consists of a vast expanse of papyrus intersected by broad rivers and lagoons. Only in parts is it possible to reach dry land from the water, owing to the intervening barrier of impassable swamp. I saw neither hippos nor crocodiles. Here and there, on dry flats bordering the swamps, were small herds of antelope; but game did not appear to be plentiful.

The *Stanley*, in which I travelled for two days, is a stern-wheel steamer plying regularly between Nyamasagali—the northern terminus of the Busoga railway—and Masindi Port. The steamer called at quite a number of small places on the way. These places served as depôts for the collection of cotton, simsim (oil-seeds), hides, and other produce; and a considerable trade is done: in fact, the Lake steamers, with barges in tow, are quite unable to take up all the goods sent for shipment and despatch to Europe.

The *Stanley* is a comfortable boat: good cabin accommodation, electric light, bath-rooms, and provided with Indian stewards. She carried only one European officer, who was captain, chief engineer,

purser, super-cargo, and everything else in harmonious combination. Presumably he found occasional opportunities for rest and slumber, but to me he appeared to be constantly on duty, day and night. We steamed during the night; and in the early morning called at Bugondo and Bulolo. At Bugondo there is a small settlement, some stores, and a ginnery of the British Cotton Growing Association.

The cotton growing industry is thriving, and increasing in volume, on the shore of Kioga, where there is no sleeping sickness nor *tsetse* fly, except in a few localities. Later, we called at Lali, another cotton collecting station at the north-east end of Kioga, which serves as the port for a large cotton district. A good metalled road runs from Lali, for twelve or thirteen miles, to the Government station. Numerous Indian traders were on the wharf waiting for the steamer and receiving or despatching goods. Some of these men had bicycles or motor cycles, of which great use is made in a country so well adapted to this mode of getting about, the roads being excellent and well kept up throughout Uganda.

We found Nyamasagali quite a busy little place. The stern-wheeler *Speke* and two other steamers were there, and a large number of barges lay alongside the wharf, discharging cotton or waiting to proceed north. Thence, by train to Jinja, was a slow journey lasting eight hours.

Jinja has a perfect harbour, quite landlocked; and the Lake Victoria steamers moor alongside a wharf

to which the railway also runs: so that there is no difficulty in handling shipments. The place is likely to grow in importance as a port for Lake Kioga produce. Its rival, of course, is Kampala, the commercial headquarters of Uganda, which is five miles distant from Lake Victoria, but is served by Port Bell. The Government centre is at Entebbe; but it is probable that Kampala always will be the principal trade settlement in the Protectorate, as the districts in its immediate neighbourhood have a large population of natives growing cotton and coffee: and, no doubt, it will be the future starting-point, on the Lake, of a railway which will run west through Uganda to the Semliki River. Jinja, too, some day will have its railway to the Mount Elgon country; and, doubtless, Jinja and Kampala eventually will be connected by rail, with a bridge over the Victoria Nile near the Ripon Falls.

The steamer, *Clement Hill*, having put in at Jinja, on her voyage east to Kisumu, I went on board. She was full of passengers: ladies, military officers on short leave from East Africa, business men, and Government officials—quite like an ocean steamship. At Kisumu, the terminus on Lake Victoria of the Uganda Railway, my second journey in the present series ended, as I was homeward bound.

Leaving England again in December, 1916, on my third journey to the Belgian Congo, I took a route that was new to me: by Egypt, the Nile, and the Sudan. In this way I completed my traverse of the

great Highway through Tropical Africa, between the Zambezi and the Upper Nile.

From Khartoum I went up the Bahr-el-Abiad (White Nile) and the Bahr-el-Jebel, in one of the Sudan Government steamers, as far as Rejaf, the journey occupying a fortnight. Immediately south of Khartoum the river widens out; and the country, until the head of navigation at Rejaf is reached, is almost on a dead level. On the sloping banks of the river, along this course, cultivation is carried on from the crest down to the low-water level.

After passing the mouth of the Sobat River and Lake No, we entered the *Sudd*—one vast area of papyrus marsh—and for some days pushed our way through this dreary region.¹ It was a relief to leave the *Sudd* and, for one day before reaching Rejaf, to steam up a river with really dry land on both banks.

From Rejaf to the Belgian Customs Station at Aba, a journey of nine days, I travelled by bicycle, and my loads were transported by native carriers.

¹ There can be little doubt that, in comparatively recent times, the *Sudd* region was a shallow lake about twice the size of the Victoria Nyanza. Indeed, there must have been a time, however remote, when the whole country lying between the Nuba Mountains and the Abyssinian foothills was filled up by lakes and marsh. At the present time the *Sudd* acts as a regulator in the *régime* of the river: it stores up, like a great sponge, when the Nile is in flood (fifty days), whilst, during the period of low supply (ninety days)—between Lake Victoria and the sea—the *Sudd* continues, and for long afterwards, to pour out its impounded waters; thus acting like a dam. If—as has been suggested in influential quarters—a straight course, with solid banks, were driven through the *Sudd*, to facilitate navigation, it seems probable that there would be an enormous rush of water in the flood season and a scarcity in the dry months.

There are only two Government stations on the way—Loka and Yei—at neither of which is there any trade carried on. Loka is one of the headquarters for recruiting men for the “Equatorial” battalion of the Sudanese army.

The Sudanese troops, with the exception of the Equatorial companies, are not nearly so mobile a force as the King’s African Rifles—the battalions of which are used, for military purposes, in the various Protectorates of Eastern Africa—on account of the impedimenta they are accustomed to carry with them and their heavy personal equipment. The K.A.R., of whom I had seen a good deal in previous years, are expected to move, if necessary, without any carriers at all, except, of course, for purely military requirements. It takes, on the other hand, a considerable number of beasts and carriers to move a Sudanese company. In the Sudanese battalions, too, as distinguished from the K.A.R., there are native officers (as well as native N.C.O.’s). I have not enough information to enable me to form an opinion as to whether the creation of native Sudanese officers has been a successful step, but with the K.A.R. it would not be considered advisable, except in those battalions composed largely or wholly of Sudanese and kindred races, in which there have for long been native officers.

The Rejaf-Aba road traverses what formerly was known as the Lado Enclave. From Aba I travelled along a good road, which would need very little improvement to make it suitable for motor-cars, as

far as Faradje; and, having obtained native servants and porters, I then turned south to Vankerckhoven-ville. Here, in country with which I was familiar, I spent two months shooting and collecting on the Welle and Kibali Rivers, and traversing the Moto goldfields in many directions.

Unfortunately, an accident interfered with my programme. I cut my right hand; and, the wound becoming septic, I was unable to do any more work in the Belgian Congo. After an operation I was compelled to leave for England at the end of April, 1917.

On leaving Congo territory, I spent a fortnight at Yei, under medical care; and finally left for Rejaf. At Rejaf I went on board the Government steamer *Amara*, bound for Khartoum; and our journey was uneventful until we reached a point about twenty-five miles south of Renk. Here misfortune again befel me, and in a serious form.

Overtaken by a severe storm, our steamer was struck on the starboard quarter by a squall. We were, at the time, pushing four barges ahead of us, but had none alongside. The squall drove us on to the left bank of the river, without doing any serious damage to the steamer; and, in the lull that ensued, we thought it had passed off. But, suddenly, a perfect hurricane of wind swept down from the opposite, or port, side. Catching us broad-side on, the steamer was driven into mid-stream, and, having no barge alongside to support her, she capsized and sank. Of the ten passengers on board,

three were drowned. The rest of us got clear of the sinking ship and swam to safety, some clinging to wreckage and some eventually finding refuge on a portion of the steamer's flat bottom, which emerged above the water.

As for myself, when it became evident that the *Amara* was turning turtle, I started clearing out of the saloon with other passengers. The cabin-deck, even then, had too big a list to starboard to enable us to climb to the weather rail; and we were thrown back heavily on the lee rail, which was awash. The rush of water buoyed us up a bit; but, as the vessel sank, water came pouring over the weather side, and I felt myself going down with the ship. From the dark depths below water I struck upwards, and reached the surface without meeting with any obstructions, probably passing between the cabin-deck rail and the sun-deck.

One of our passengers was a lady, Mrs Moir; but, being a good swimmer and courageous, she was saved, together with her husband, Colonel Moir. Four of us spent a bitter hour on the submerged steamer's bottom, and realised what it must be to perish of cold and exposure. Fortunately, the four barges, being securely lashed together, did not capsize, and eventually reached the Nile bank. A small launch, which had been towed with the barges, rescued us and other passengers afloat and took us to the barges, on which there were a number of Greek and Egyptian passengers. We were all more or less in a state of collapse, but were supplied with

brandy and clothes by the other passengers and the Syrian doctor, who took us in hand and cared for us until a relief steamer arrived on the following day.

I regret that my Uganda boy, who had been with me throughout my Congo journey and was accompanying me to Khartoum, lost his life by drowning; he was, however, the only native who did not escape. He must have been looking after things in my cabin at the time of the disaster, and thus prevented from getting clear of the sinking vessel. I was grieved at his loss, as he had been a good and faithful servant.

The body of Major Thwaites was found on the day after the wreck and taken in the *Zafir*—the relief steamer—to Renk for burial.

Everything I possessed—clothes, outfit, photographs, records, diaries, notes, maps, collections, and money—went down with the boat; all I had left me was the scanty apparel I swam off in.

And so we came to Khartoum, beyond which I need scarcely carry the reader. Nor shall I venture to give my impressions of a country which, since its reconstitution as the Anglo-Egyptian Sudan, has made such remarkable progress under the wise administration of General Sir Reginald Wingate, now His Majesty's High Commissioner in Egypt.

Descending the Nile, as I did, from Rejaf to Cairo, and passing through the irrigated lands of Upper Egypt, one could not help feeling immensely impressed with the wonder of this mighty river,

which, issuing from its lake reservoirs, drains nearly the whole of North-East Africa, and, after passing in its middle course through a deep zone of desert, finally renders habitable in the delta the populous area of Lower Egypt: a distance, from its remotest source, of four thousand miles.

CHAPTER XIV

ELEPHANT HUNTING

On the virtues of gun-boys—Some elephant shooting—A man hunt—Equipment.

ONE of the most difficult things to get in Africa is a really good gun-boy. Such are born, not made. During some twenty-five years spent in Africa I cannot say that I have had more than three or four thoroughly efficient gun-boys. So many things are essential to their efficiency. In the first place, a gun-boy must be a good tracker, able to spoor game over every kind of ground; and he must have courage. Secondly, he must always keep his eye on his master and be ready to hand over his rifle or cartridges to him at any given moment or under any conditions, however exciting or alarming. Thirdly, he must be a good runner, able—although handicapped with a rifle weighing possibly twelve or fourteen pounds—to keep up with his master, whatever the pace; he must also be able to make his way, without boots, through any kind of ground. And finally, as regards personal qualifications, he must be good-tempered, not excitable, not liable to be demoralised by a

charging elephant, buffalo, or other dangerous game, and, in addition, be able to stand hardships and privations that cannot be avoided in hunting big game. These characteristics are not often found combined in a single individual. The two best boys I ever had were picked up by mere chance: the first came to me in 1887, when only sixteen years of age, and remained in my service until 1912 (I had him also with me in 1913, between Zomba and Mombasa, whence I sent him home by sea); and the other was a raw Congo lad, who turned up in search of any kind of work.

My interviews with elephants have been many and various in their issue; but I propose in this place to restrict my record to those taking place mainly in the Eastern Congo. East Congo natives possess but little sporting instinct: many of them can follow a spoor fairly well, but seldom go out hunting themselves, and are scared to death by the sight of an elephant. Elephants have one sense very strongly developed—that of smell. So long as they do not get your wind, you can show yourself, make rustling noises, crack sticks and reeds, and they take little notice; even when they see you plainly, they do not seem to realise quickly that you are man, the enemy: but let them have the faintest whiff of your scent, and they either charge or go off at once, often for many miles without a stop. It is, therefore, all important in elephant hunting to have the wind right. Congo natives do not realise this: they will guide you to elephants they have seen, going right up to

windward of them unless you are constantly on the alert: they do not comprehend, nor can you make them understand, the reason for your insisting—whenever the ground allows—on a *détour* to leeward.

When about twelve miles south of the station of Irumu, I was told that there were elephants in the immediate neighbourhood. So, taking a Balesi guide, I went to investigate matters, and soon found a fair bull in very dense forest. Approaching to within twelve yards, where I could distinguish the lower parts of a trunk, I guessed at a forehead shot and fired. This failing to drop him, I put in two more (Jeffery 404) as he broke away; one in the shoulder and a finishing shot intended for the spine. Unfortunately, this was a single tusker, the tusk weighing fifty-seven pounds. I then followed the spoor of another bull, which gave me a round chase of ten miles; but when I got up to him, the wind betrayed me and he got beyond my reach. However, it was a healthy day's walk of twenty-four miles—much of it through high grass and immense reeds.

On the following day news came of elephants having been heard "near by": so I went to look for them. It was a long way off, however. We followed their spoor for three and a half hours; and, as they were still going hard, we had to abandon the pursuit, after doing twenty-two miles. At one spot in the forest we passed an elephant-trap: a heavy beam of wood hanging from a high bough, equipped with a

long sharpened spike of hard-wood tipped with iron and smeared over with some poisonous preparation. Athwart the elephant path, under this trap, was a piece of creeper, quite inconspicuous, which released the beam and thereby drove the spike with great force into the back or behind the shoulder of any passing elephant or buffalo.

Another day, near the same village, I failed to get a good elephant. Starting at dawn, we soon came upon fresh spoor: so, leaving the carriers behind, I followed through the usual kind of thick undergrowth and forest, and shortly afterwards came up with the bull. A hurried head-shot failed to reach the brain; and, as he ran, I got in a second bullet in his ribs; but the undergrowth was so thick, I saw him no more, although tracking for several miles.

On the day after reaching Magombo's village, in the Upper Welle district, I heard of an elephant having been seen not far away in the forest. After striking the spoor, I followed for an hour and got close enough to hear the beast ahead of me. It was a good bull; but, unfortunately, at that very moment we fell in with other elephants, and, in the mix up, the bull I had to shoot was a poor one with only twenty pound tusks, whilst the big one got away.

No sooner had I returned to camp, and before any food could be prepared, news reached us of elephants in another direction—said to be *peni-peni* (near). We had a tramp of five miles through forest and reeds before finding the spoor. Again luck

was against us, the track taking us right down-wind; and, as the breeze was strong, the elephant got our wind and went off full speed. We followed up for two miles, and sighted him once in the grass at five hundred yards; but he never gave us a chance after that.

At Kubango's village—which is the centre of a fine shooting country—we heard of elephants; and I came up with three of them on the bank of the Moto River, one of which I shot. Next day, I came across a bull and killed him with a head shot, as he charged me. There were more elephants about, and I followed some for several miles; but they were travelling too fast for us, having been scared by the rifle fire.

Returning to Kubango's some days later, the chief told me that there were many elephants round his village, and put forward the usual suggestion that I should camp there, promising to send out his people in search of spoor. This generally is a poor plan, because so much time is wasted in sending out the men; moreover, to satisfy their desire for meat, cows perhaps will be reported instead of bulls. I told Kubango that I preferred to camp in the *polini* (open bush) where elephants wandered: so, much against the wishes of the carriers, he told off a man to lead us to a place where he thought there might be some. We thus got on to a previous night's spoor, within a mile from the village, and shortly afterwards came up with elephants in thick forest; but it was bad ground for a meet. I could

distinguish only one beast, and got in two shots at him, but he disappeared. I wounded another, of whom I got a glimpse; and then tracked up the first one and killed him. We then went after the other wounded bull: but it was difficult to keep to his spoor among so many recent tracks, and, in the end, I had to abandon the quest. Returning to the spot where the loads had been left, we all went into camp at the village, much to the joy of the carriers.

As compared with countries round Tanganyika and Nyasa, there are very few native paths in the North East Congo. This, no doubt, is due partly to the impenetrability of the country. The ground on which I found the elephants at Kubango's was a mixture of true forest, with reeds twenty feet high, and occasional bush and thorn trees: good ground in the more open parts, but bad in the unburnt reeds and thick forest.

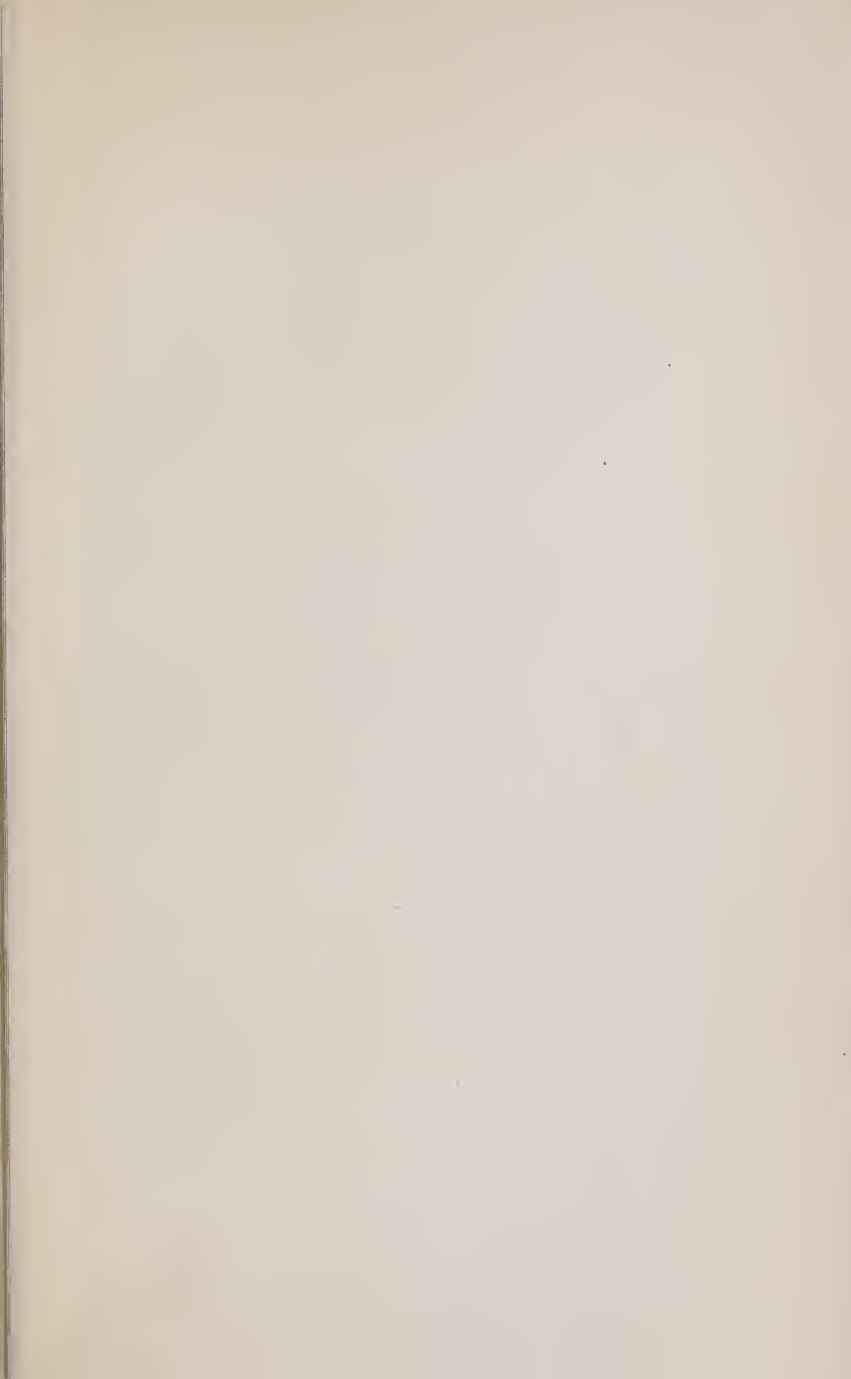
One of my gun-bearers, a Toro man, being too lazy to keep up with me, I put in his stead a raw native boy; and this day at Kubango was the first chance I had of seeing how he shaped. At first, when he got close to elephants, he was inclined to run, but managed to hold himself in. On the following day, starting from the village at dawn, I went to the spot where I had lost a wounded elephant's spoor, with the intention of following it up. On the way, however, I struck fresh spoor, got up to the elephants in half-burnt reeds, and secured one with the first shot (tusks, seventy-two

and seventy pounds). One, wounded, got away with two others; but I followed up and got near to them again in dense reed jungle, where they caught our wind and broke away. Again I followed, through ghastly reed country, to the Moto River, where I succeeded in killing the wounded elephant: a single tusker (eighty-two pounds).

Next day I went out again and struck the spoor of elephants made during the night; but they were travellers, and we let them go. As I thought all elephants near Kubango's probably had been scared off by the shooting and meat cutting¹ of the previous days, I went down the *balabala* (road) leading to the Moto goldfields. Near the Moto River, I struck fresh tracks of a single elephant, crossing our path; and as it had a large foot, I assumed it had large tusks. Across the river, and a short distance beyond, I came up with the elephant and brought it down with one bullet: the temple shot for the brain. But, although the beast was indeed large, his tusks were small, weighing only twenty-five pounds each.

On the day after my arrival at the town of Babungula, I struck fresh elephant spoor, but had a bad meet: two bulls in the thickest possible forest. A snapshot was all I could take; and both got away. I followed far, and eventually got a sight of them, but they escaped me. Later, in the same afternoon,

¹Our English half-axes and hatchets are no good for cutting up meat and getting out the tusks, because they chip or break; native axes are the best, if procurable.





(1) HUNTING TROPHIES AT MOKOTO.

(2) A BLACK RHINO.

near the chief's village, I secured one elephant with tusks of fifty-five pounds, each.

On the following day we sighted four elephants moving slowly in fairly open country. I got up and killed the biggest with one brain shot (tusks, each sixty pounds); killed also (as I thought) another, and wounded a third; the latter I caught up and killed a mile away—a single tusker (sixty-five pounds). On returning to the two “dead” beasts, I found that one had recovered and left; and, although I followed him for miles, I never found him. It was then late in the afternoon; and, having no food with us, we turned for home.

On the way back we sighted more elephants: this time, a large herd, on a hillside. We made our way towards them; but the half-burnt reeds made it almost impossible to force a passage, and we could not progress more than a mile an hour through it. We succeeded, however, in getting up to one division of the herd, consisting mostly of youngish bulls. When we reached them they were on a fairly clear hill ridge, where I obtained a good sight. Moving about, looking for any decent tusks, I fired at one bull. The whole lot then rounded on us and scattered my boys; one came straight at me, and received a face shot, which turned him. The result was, I got three bulls, none of which had large tusks.

Between the villages of Danga and Magombo we struck the spoor of an elephant that had crossed the path three hours before; so I sent on the loads, with instructions to the men to wait for me at the first

village they reached ; and, with the two gun-boys and a local native, I followed up the beast, which from his spoor I judged to be a fair bull. The track took us through open ground, with burnt reeds ; but, just as we were getting close behind him, he entered the forest : and there we found him. I did not get up well, and had not a good view of him ; but I decided on the head shot (temple). This brought him down, but he got up again ; and it took two more body shots, as he went off, to kill him (tusks, sixty-four and sixty-eight pounds).

Returning to the path I found the carriers at a village two miles ahead, where we went into camp ; and, as the day was yet young, I sent men to cut out the tusks. Soon after, a man came in to say he had seen elephants not far away. I went out again, in the fierce midday sun, only to find that the tracks had been made very early in the morning ; and these were not worth following up so late in the day, with the off-chance of having to sleep out, without food : so I gave it up.

Next morning, just as we were about to start for Magombo's, fresh news of an elephant was brought to me ; so I delayed my departure until I could see whether it was spoor worth following up. The early morning is always the best time to strike fresh spoor, as, until about eight o'clock, the wind does not get up. Arriving at the spot we found that two elephants had been feeding in the night in an old banana grove, and had left it not long before daylight. When I came up with them in high reeds, I could see

only one ; but managed to get within fifteen yards, and killed him with three .404 bullets (tusks, only thirty-four and thirty-six pounds). His companion we never saw. It is always a matter of luck when following up more than one elephant, as to which one meets first. Congo ground is so thick with growth of one kind or another that it is exceptional to be able to move about elephants when once found : one has to take one's chance of what comes in sight.

Whilst waiting for fresh carriers at the Belgian *poste* at Arebi, I received word that spoor had been seen four miles away in forest and scrub. There were two elephants, when I got up, in dense dark forest ; and for some time I could see only patches of dark brown to distinguish them. The movement of one of these elephants disclosed a head, only twelve yards away ; and I killed him with a bullet in the brain : he was a big beast with fair tusks. The other made off, and, although I could hear him ahead of me, I failed to get up.

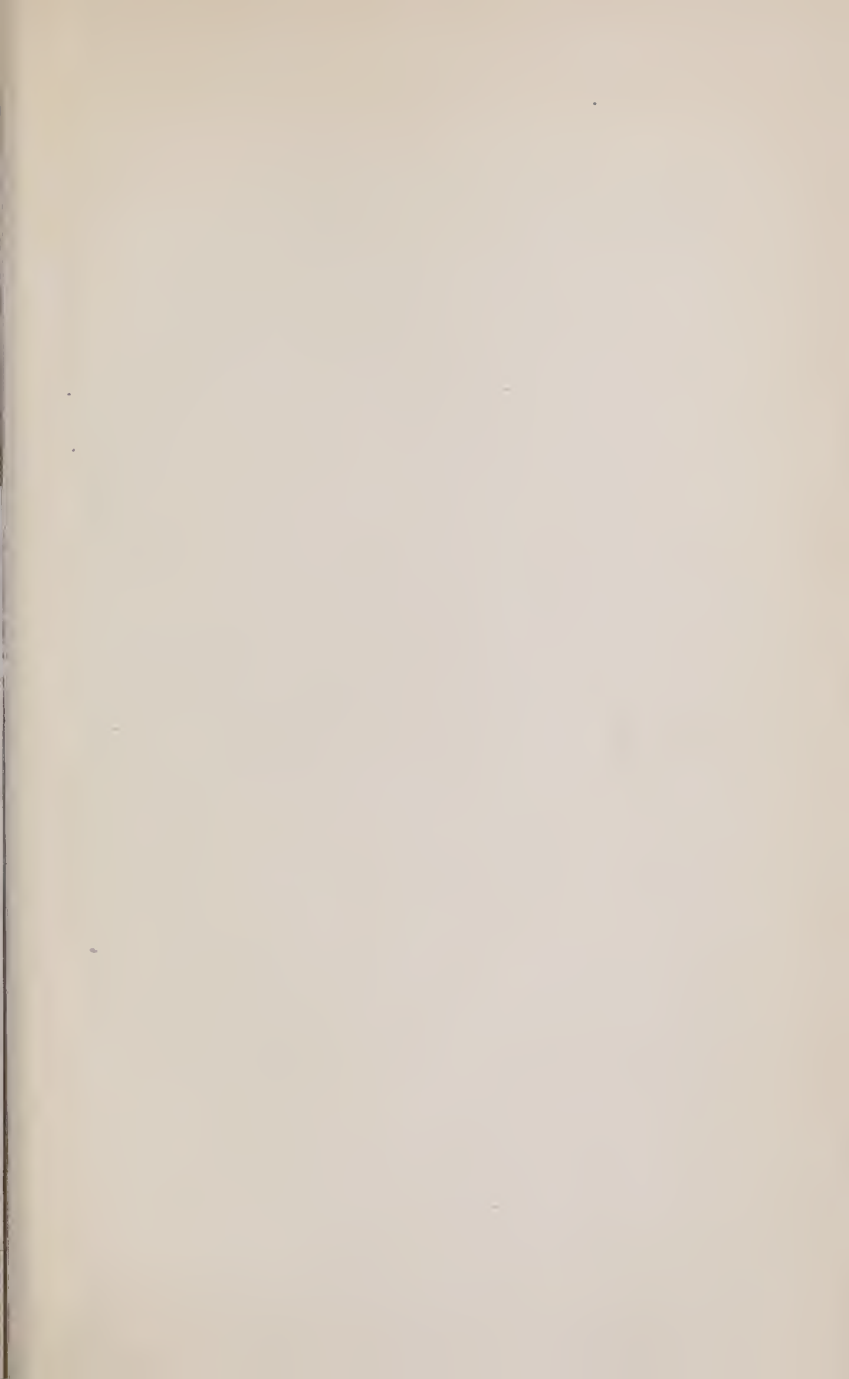
A day later I got two elephants about five miles from the station (Arebi) ; and another day I killed a good bull with tusks of exactly ninety pounds each. The latter was with three companions when we got near to them ; but, frightened at meeting some natives in the forest, they went off. Choosing the largest footprints, I stuck to them until I got within eight yards of my elephant, and was able to place my bullet exactly where I wished, when a single shot brought him down.

Between Arebi and Garu, on my way to Lake

Albert, I got word of elephants early in the afternoon. Being the hottest part of the day, they had not gone far; and, when we reached the spot, they had just left a patch of thick forest and were in high grass. I got up nicely to one (there were two bulls only) and killed him with one temple shot (tusks, sixty-four and sixty-eight pounds).

A few miles farther on, at the village of Duoto, I had an unsatisfactory day. I had received news of a bull not far away, and found him in dense reeds; but, before I could see him distinctly enough to fire, he charged and knocked down my gun-boy and nearly ran over me. I fired in his face, and followed him up for some miles; but he was going strong, and I never again got near him. After the midday meal I had news of another elephant, and tracked him into the forest. The leading native, on seeing him only fifteen yards ahead, turned and fled; and my gun-boy, panic stricken, went off, too, carrying my Jeffery .404. Catching him up, I seized the rifle and went back to the elephant, which then was moving. As he ran off, I failed to stop him with two hurried shots; and I never got up to him again. It was a bad day to lose two bulls in this way. I had my revenge, however, on leaving Duoto for Garu, when we came across a party of mixed bulls. I got up well, killed one and wounded a second; then, following up the wounded beast, killed him too.

On the way back, when it was getting dark, we sighted a large solitary bull. He had heard our voices and was making away. Following him up, we





"FREE MEALS FOR THE PEOPLE." CUTTING UP AN ELEPHANT.

met face to face at forty yards apart. In spite of the bad and failing light I tried the forehead shot, with the result that he went off strong and was lost to me. His tusks were well over one hundred pounds, each.

While the previous day's tusks were being cut out, I thought I would allow myself a little rest; but, at eight in the morning, tidings of more elephants reached me. I soon found their spoor and came up with them; but they were cows. Returning, I met a native who said he had seen a single bull; and, on the way to the patch of forest indicated by him, we ran into a party of bulls, of which I killed three, the largest having tusks of sixty-three and sixty-four pounds.

The number of elephants about Garu's village was astonishing. I spent three days hunting there; and it was a very strenuous time, tramping through all sorts of ground for about ten hours each day. Like the monster himself, everything to do with elephants is on a big scale. Elephant hunting has its drawbacks, of course, but being hunted by an elephant is worse. The most amusing instance of this kind that I know befel an official of the Sudan Government Service.

The road between Yei and Rejaf, at the time when I traversed it, was overrun by elephants; and we constantly passed fresh tracks. There was one large bull which apparently frequented part of the road between the station of Ganzi and Yei. Just before I passed through Yei it happened that one of the

Government engineers, who was bicycling along the road, after leaving Ganzi, saw fresh tracks of elephants. He decided to proceed gently, in case they might be close at hand; but, after a time, seeing nothing, he speeded up again. On suddenly turning a sharp corner he saw, standing across the road, a big bull elephant. He was going too fast and was too close to the beast to stop and get off his bicycle: so he quickly determined that his only course was to pass between its stern and the edge of the road. To his dismay, however, when he was almost upon the elephant, he saw a large stone blocking this narrow path of escape. But there was no turning back: he made his rush, and just managed to evade the stone; but, in doing so, he nearly fell, and only saved himself by thrusting out his hand to steady himself against the leg of the elephant as he passed. Resenting this action, the beast trumpeted and twisted round; but the sweep of its trunk happily missed him, and he pedalled off for all he was worth.

After going a couple of hundred yards along the road he glanced back and observed that the elephant was following him in hot haste. He was then at a disadvantage, having some up-hill ground in front of him; but he reached the top safely, and speeded down on the farther side, crossed a bridge, and again negotiated an up-grade. Half-way up he glanced back and saw the elephant still following him on the near side of the stream. Another incline faced him; but he reached the top and raced down the other side. At the foot of this down-grade there was a

small culvert, which offered a means of escape. Jumping off his machine, he dragged it beneath his shelter and waited upon events. Presently the elephant stopped, having undoubtedly got his wind. The culvert being too small for an elephant to pass through, the fugitive thought he was in a safe place: and so he waited for half an hour, until the elephant, giving up the chase, finally made off.

On my return, in 1916, to the North-East Congo the first interview I had with elephants occurred near the village of my old friend, Kubango. I had struck the spoor early in the morning, of a party of four good bulls; and this carried me through fair ground towards the Welle River.

On this journey to Africa I had brought a double-barrel .600 rifle by Jeffery and a magazine .333 by the same maker. The big double was a new departure on my part, as I had used magazine rifles ever since 1893, the last double I had carried being the old black-powder double eight bores which I used (together with a single four bore) from 1887 to 1892. I have always been an advocate of the magazine rifle, in preference to a double, for elephants; and experience on my last journey confirmed me in this view. Those who argue for the double may point to the advantage of the two very rapid shots without any reloading or bolt working; but, in a "close call" with elephants, it is running a very heavy risk to expend the last cartridge. A double gives you only one shot, since it is expedient that the last always should be kept in reserve. A magazine, on the other

hand, gives you three shots, the fourth being held in reserve.

On this occasion, near Kubango's, I was using the double .600 for the first time. Getting up to my beasts in half-fallen reeds, I took the head shot; and the bull I fired at dropped. I then took the head shot again, with the left barrel, at another elephant, and dropped him. The remaining two bulls at once charged straight at me. There was no time to reload. I turned for the .333, but the gun-bearer had bolted back. I had, therefore, nothing to do but to throw down my .600 and try to escape. The thick mass of fallen reeds tripped me up and I fell. I saw one bull almost over me, and endeavoured to burrow into the mass of reeds, wondering whether it would be tusk or trunk reserved for me. At that moment I heard my boy fire the .333; and the bull, receiving the bullet in its face, whisked round and made off. Of the two I had dropped with the .600, one had recovered and got clear; the one I secured had tusks of seventy-six and seventy-four pounds. I got one or two more elephants on this journey with the .600; but most of them fell to the .333.

One other matter before I close this brief record of some of my experiences in elephant hunting. From time to time there have been discussions as to whether, in Africa, elephants ever lie down. I have no doubt they do, as the fact is vouched for by many reliable witnesses. Personally, I have never seen one of these animals, in repose, lying on the ground—except, of course, when wounded—and my experi-

ence is a long one, extending over thirty years in Northern Rhodesia, Nyasaland, Portuguese East Africa, and the Congo. Selous also, I am told, stated that his experience was the same. On the other hand, Mr Sutherland, the well-known elephant hunter, whose statements may be trusted, asserts that he saw recumbent elephants on many occasions. I was informed also by several Europeans in the Sudan that they had seen the same thing.

Of the habits of elephants, of their distribution in Africa, and of other lore in connection with elephant hunting, much might be written as coming within my own experience; but this is not the place for it. I, therefore, leave the subject, as I left the elephants in Eastern Africa, with reluctance.

Note on Equipment

The question of equipment for an African journey is largely one of individual taste, but much depends on what regions are to be traversed. The ruling factor is that of transport. If native carriers are plentiful, then one can travel in great comfort and with few privations. If, on the other hand, as is usually the case on a long journey, there are likely to be difficulties in procuring carriers or some other form of transport, the greatest care has to be exercised in order to cut down every item to the lowest limit, both in food and in general outfit.

On my last journey in the Belgian Congo, I

started with forty-two carriers, the loads averaging forty-eight pounds each. It is a mistake to make your loads too heavy; and it is a great point to arrange the weights as much alike as possible. Just as the strength of a chain depends on the weakest link, so the easy accomplishment of a day's journey depends greatly on the weight of the *heaviest* load. If all your loads are light, except one, that one delays your entire caravan.

As regards food, one expects to live largely on the country, so far as meat and vegetables are concerned, and to rely on fowls, game, birds, and the usual African vegetables. All else has to be carried: tea, sugar, flour, biscuits, and everything that a European may require.

For tents: I use a seven and a half feet by seven and a half feet, with long fly (to the ground), and a five feet "veranda." The veranda is most useful. I also carry a small "scout's" tent for personal servants. It is advisable to have a fairly wide camp bed of the best make, with hair-mattress, pillow, etc.; and I carry two mosquito nets, in case one should get damaged.

As to the other numerous items necessary for comfort on a long trek, these can best be ascertained from outfitters' lists.

The all important question of rifles and guns is also largely a matter of taste. In the old days, up to 1892, I used to carry (*a*) for elephants, double eight bore rifles, taking twelve drams of Curtis and Hervey's No. 6 black powder and a three-ounce

conical bullet of hardened lead ; and (b) for ordinary game, the double " express " of those days. Since nitro powders and magazines came in, I have never used heavy rifles (until my last journey, when I used, for a time, and then discarded, a double .600). It is very advisable to have as few *different* calibres as possible: and for those who, like myself, have to consider carefully the question of expense, I consider a " battery " on the following lines as all sufficient:

A .404 Jeffery magazine, with both solid and soft nose ammunition.

A Lighter rifle, from .256 to .333, for all ordinary game, with both solid and soft nose ammunition.

Two twelve bore shot guns.

A .410 collector's shot gun.

I find a .404 Jeffery rifle quite powerful enough for elephants, under all conditions; and I prefer a magazine rifle to a double. As I have said already, it never is safe to fire your last cartridge; therefore, a double only gives you one shot before reloading, whereas a magazine gives three or four, and the bolt is worked without taking one's eye off the object. If a man were limited to one rifle for every purpose, I would suggest a .333 Jeffery (magazine), or some similar rifle. On my last journey I used practically no other rifle, for all purposes.

Among special articles of constant use on a long journey which might possibly not be thought of, I would suggest the following:

Circular spring balance, to weigh up to one hundred pounds.

Small axes made of comparatively *soft* iron, so as not to chip off, as our own highly tempered axes do.

Strong sail-cloth needles.

Set of zinc trophy numerals, duplicated.

Eating-chocolate in air-tight tins.

As to alcohol, I take only a few bottles of whisky and champagne for special occasions. Liquor is too heavy and uses up too much transport.

I have never used a helmet. I find them too clumsy and cumbersome. A good double terai hat with a small khaki coloured pugaree and a light handkerchief carried inside the crown I have always found ample protection. I wear a light, large khaki coloured handkerchief thrown round the neck and knotted loosely in front; this protects the shoulders and upper spine better than any hot and stuffy so-called "spine protectors." Once, long ago, I tried wearing a "cholera belt"; it became soaked with perspiration, and, after that, caused a chill which brought on a sharp attack of dysentery. Since then, I have carefully avoided such things. The usual shape of shirt is not suited for African travel: it is best to have these made almost *without* tails, and *not* to tuck inside the breeches, but to wear *outside* like a jumper. This prevents one getting soaked with perspiration round the waist. Heavy khaki breeches are a mistake: one requires to study lightness in everything: have your breeches as light

as possible, so long as they are strong enough to resist a reasonable amount of wear and tear in rough thorny bush.

Some men like to wind putties round their legs and to wear heavy boots while they go with short and bare knees: this may suit some people. I find, myself, that the best leg-gear is *loose* light khaki breeches, buttoning below the knee, and having a piece of tape which takes two turns round the leg immediately below the knee and keeps the breeches from working down: there is then a narrow continuation down to the ankle and this is tucked inside the socks. The leg is thus free and not bound tightly. One has to carry a pair or two of strong laced boots; but what I find most comfortable for marching is canvas boots with rope soles: these, however, are not good for use in wet ground and in the rainy season. The best of all foot-gear for shooting is rubber soled light canvas shoes, generally called "gym shoes." Inside these I put a sole cut out of raw hide (*hartebeeste* or *waterbuck*) which will stop most thorns. Nothing can touch these shoes when it comes to quick sprints after game through all sorts of ground; and again, if you have to make your escape from a charging elephant, you are more likely to succeed than if you are held back by heavy leather boots. Over these light canvas shoes it is well to wear light, short canvas spats.

One should always have soft mosquito boots to wear in the evening, boots reaching half-way to the knee. An old dressing-gown is invaluable. After

the evening tub, one gets into pyjamas, mosquito boots, and dressing-gown.

I always carry a few night-lights, which on occasions are useful; also a small electric lamp, with several spare batteries, and some of Payn's powerful two minute magnesium flares, for use when lions are round the camp.

Always take a bicycle. There are few parts of Africa where the humble push-bike cannot be made some use of.

A strong umbrella is often useful on the march. Even the lightest burberry sometimes makes one feel too hot; and the umbrella (carried by one of the gun-boys) enables one to carry on through a sudden shower. I used to give a coat of linseed oil to a strong alpaca umbrella, which not only makes it quite water-tight but helps it to last out for a whole journey.

CHAPTER XV

RECONSTRUCTION IN EASTERN AFRICA

Disposition of the German Colonies—The Question of Restitution—The Partition of Africa—Uganda and British East Africa—Suggested union of Protectorates in Eastern Africa under a Governor-General—Partition of German East Africa—Redelimitation of boundaries—Problems of railway construction—A united East African Colony—The Home Government—Native taxation—Local representation—A native military reserve force—Crown and spare lands—The Land Law—Native rights and education—The Labour Problem—Migration—Steamship subsidies—Rehabilitation—"Cape to Cairo Railway"—Missions—Conclusion.

IN this chapter I venture to submit my own personal views on the problems of reconstruction in Eastern Africa. In my suggestions as regards the rectification of frontiers, I am, of course, assuming that in no circumstances will there be a reversion to the *status quo ante bellum*. The German Colonies in Africa—and particularly in East Africa—have been acquired at the cost of a great military effort, in which the various units of the British Empire, apart from the Mother Country, have made considerable sacrifices.

These sacrifices have been made willingly, in the common cause, but none the less designedly in

favour of our general interests in Africa: as an instance of which, one may regard the restitution of German South-West Africa as an inconceivable proposition, and as one that would be strongly resented by the Union of South Africa, which has borne so conspicuous and gallant a share in the re-conquest. In East Africa, too, we must protect the native population against a reversion to the harsh rule of the Teuton. In both instances, Germany, aided by our own complaisance or indifference, acquired her position in Africa by chicanery, at least in the initial stages, which compelled others having interests in that continent to join in the general scramble for unoccupied territories. The facts are too well known to need recapitulation.

When the more orderly partition of Africa supervened, boundary lines of British spheres were drawn and agreed on far too hurriedly, and often regardless of expert advice. An intimate, or even general, knowledge of geography is, or was in the past, not regarded as an essential qualification in the appointment of officials of the Foreign and Colonial Offices, with the result that, in the demarcation of international boundaries, mistakes have been made which were due simply to ignorance of geographical principles and local conditions.

I therefore offer for consideration the following suggestions, some of which refer to internal reforms, and which may be said to be based on practical experience.

With regard to Kenya Colony and Uganda, these two Protectorates should be united and placed under one Governor and administrative staff. There is no reason why this course should not have been taken before now: the existence of the two territories—one being the complement of the other—under separate systems of government and differing tariffs, and, in some respects, variant policies, is an anomaly, causing unnecessary expense and inconvenience. Undoubtedly, the best and more comprehensive course to take in respect of all the East African Protectorates, would be to unite the territories north of the Zambezi and south of the Anglo-Egyptian Sudan under one Governor-General, with residence possibly at Zanzibar. This amalgamation would include Uganda, Kenya Colony, Nyasaland, Northern Rhodesia (now under the British South Africa Chartered Company), the Zanzibar group of islands (Zanzibar, Pemba, and Mafia), and such portions of Tanganyika Territory, as have been allotted to Great Britain, as trustee for the British Empire. There would then be three Governors, with local administrations under the supreme control of the Governor-General: namely, (i) Nyasaland (with a rectified frontier) and Northern Rhodesia, with headquarters at Zomba, (ii) Uganda (also with a new frontier) and British East Africa, with headquarters at Nairobi, and (iii) the Zanzibar group and Tanganyika Territory, with headquarters at Zanzibar. The whole of these territories might then be styled the “Colony of British East Africa.”

As to (the late) German East Africa and the manner of its partition, the two rich districts of Urundi and Ruanda have been allotted to Belgium, whose troops have contributed so largely and so gallantly towards the conquest of this German colony.

As regards the re-delimitation of frontiers, the united Protectorates of Uganda and British East Africa require, unquestionably, to have their southern boundaries extended in such manner as shall include Bukoba (on the west), and Tanga, Usambara, and Kilimanjaro (on the east). This expansion of territory would be accomplished by drawing a new southern boundary from the southernmost point of Emin Pasha Gulf, on Lake Victoria, westwards to the new Belgian boundary: and, again, from the easternmost limit of Speke Gulf, on Lake Victoria, in a more or less direct line to a point on the sea coast a little south of the Pangani River.

The Nyasaland Protectorate, incorporated with Northern Rhodesia, requires an addition of territory in the north, the limit of which might be a line drawn from this point where the eighth parallel of south-latitude intersects the eastern shore of Lake Tanganyika, following that line east to the point where it is intersected by $34^{\circ} 30'$ east longitude; thence, a more or less direct line in a southerly direction to Amelia Bay, on the eastern shore of Lake Nyasa.

By these new boundaries, Uganda, British East

Africa, North-Eastern Rhodesia and Nyasaland would recover control of districts in which British influence formerly was predominant but which were handed over to Germany in the hurried partition of Africa. As regards the territory thus proposed to be returned to Nyasaland, I have one emphatic remark to make. Not only was British influence formerly predominant there, but a great part of it—Kondeland—represents ground for which British blood was shed, in the war waged against the Arabs (1887, 1888, and 1889) the history of which is given in Sir Frederick Lugard's book "The Rise of our East African Empire," in Mr Monteith Fotheringham's "Adventures in Nyasaland"¹ and in Sir Harry Johnston's "British Central Africa." Kondeland never should have been given up to Germany: the only excuse imaginable for the abandonment of such a fine people and country, with their imperishable associations, must be attributed to geographical ignorance on the part of our negotiators.

The mandate for the remainder of German East Africa, that is to say, the greater part of the eastern shore of the Lake and the sea coast parts of Sadani, Bagamoyo, Dar-es-Salaam, Kilwa, etc., and the railway for eight hundred miles from the Coast to Lake Tanganyika, has been granted to Great Britain.

¹ As Mr Fotheringham puts it: "The great mass of the Mwambe [the people of Kondeland] who rescued the band of whites besieged in Karonga and afterwards fought side by side with us against the Arabs; whose country we in turn were the means of saving from Arab aggression; people, in fact, whom we had been amongst for a decade—are handed over to the Germans."

So much for the question of our frontiers under a reconstruction scheme.

I now turn to some of the more pressing requirements of our East African territories.

We have, in these Tropical possessions, some of the richest countries in the world: rich in agricultural products, rich in mineral resources—including coal, iron, lead, gold, silver, and copper. There is, however, one great obstacle in the way of their development, and that is the lack of communication. No matter how rich a country may be it must possess railways to carry off its exports and bring imports down to a reasonable cost for transport. Roads, and even waterways—except in the pioneer days of a colony—are mere makeshifts: the chief means by which any new country can be opened up is railway construction. It has been proved over and over again that, in Africa, railways soon pay their way. We could scarcely have a better example of this than that afforded by the so-called “Uganda Railway,” a line which was built by the British Government from the sea coast to Lake Victoria. It was projected and constructed in the face of heated opposition and criticism, both on the part of the public and of African experts. People asked: What on earth was it going to carry? Well, when it was begun to be constructed, there was almost nothing for a railway to carry in the way of merchandise; but, in a surprisingly short time after its completion, it was able not only to pay its way but also interest on capital expenditure. Strategically, too, it has been invaluable to us in the war.

It has enabled us effectively to defend our own territory and to invade that of the enemy; and it has provided the means for transporting supplies to our allies, the Belgians, in the Eastern Congo. It has opened up some of the most charming countries in the Dark Continent; and it has been the means of initiating a steady movement of settlement and development by Europeans of the healthy highlands between Nairobi, the capital, and Lake Victoria. Indeed, the need of a double line of metals is already felt, or at any rate of many more sidings than exist at present; and, after the war, rolling stock will be required in increased quantities.

The Uganda Railway, which at present has its terminus at Kisumu (Lake Victoria), must be continued by a branch leaving the line near Londiani, running towards the G'was Ngishu plateau, and then turning west to Jinja and Kampala (Uganda), touching possibly at Port Victoria. From Kampala, no doubt, an extension eventually will be necessary—through Toro to the Belgian frontier—in order to tap the Kilo-Moto gold deposits, which, there is reason to believe, will prove to be one of the great goldfields of Africa, if not of the world. Uganda also requires more than one short light railway from Kampala or Jinja to serve the cotton and coffee producing districts, which at present are handicapped by heavy rates of transport.

In order to tap Ruanda and the country surrounding the romantic Lake Kivu, there is a choice of three railway routes: (i) from the south end of Kivu

to the north end of Tanganyika (eighty miles), so as to link up with communications by the German Central Railway; (ii) from Kivu, through Ruanda and Bukoba, to Lake Victoria; or (iii) from some point in Ruanda (say, Kigali) to Tabora, on the German Central Railway. The first would be the least costly, and would satisfy existing requirements.

A railway will be needed from Kilossa or Morogoro (on the German Central Railway) to the Langenberg district, near the north end of Lake Nyasa. This magnificent country, which reaches elevations of over eight thousand feet above sea-level, has a rich volcanic soil; produces cotton and coffee and cattle, besides many African products and European fruits; its climate is good, and the country is well suited for colonisation by whites.

Of Nyasaland and its needs I have said enough in the preceding chapters. Railway extensions—particularly, the projected railway from the Shiri Highlands to Lake Nyasa and south to Beira, both routes being already surveyed—are urgently needed, and their construction should no longer be delayed by the procrastination of our Colonial Office, which has had the project under consideration for over ten years.

It cannot be too often insisted that, if our African Colonies are to be developed, they must be opened up by railways. To hold these territories, and not to develop them, is a purposeless policy. These lands can produce, in addition to ordinary trade pro-

ducts, unlimited quantities of foodstuffs—maize, beans, grain, oils, and so forth—and, if the war has demonstrated one thing clearly, it is our need of increased production within the Empire of foodstuffs and raw materials, so as to render the Home Country less dependent on foreign supplies. It is to be hoped, therefore, that, whatever economies it may be necessary to introduce now the war is over, these will not take the form of stinting our African Colonies of the essential means to develop their immense resources: so shortsighted a policy would not pay in the long run.

In future, our united East African Colony should not only be under one supreme control: it should have, also, one customs tariff, one policy, and one administrative system, both as regards the administrative staff and the officers attached to the service. Furthermore, Eastern Africa, together with our West African Colonies, should have some more direct and effective form than at present exists of representation in the Home Country, either by the creation of an African Council—such as frequently has been suggested—or of a special expert Board, with headquarters in London.

The system of leaving our African affairs almost entirely in the hands of the permanent officials at the Colonial and Foreign Offices tends to become ineffective in practice and abortive as regards any initiation of reform and development. Apart from the fact that, for the most part, they have no first-hand knowledge of Africa nor of the actual needs of our

possessions in that continent, their opinions and decisions are too much influenced, especially in financial matters, by the requirements of other Crown Colonies: so that the go-ahead Colonies are kept back by the arrested development of others, in one way or another. The question of the "Colonial Vote" is always before them; and, however it may be made up, there is (or appears to be) a tendency to smother, or retard as long as possible, any attempt to obtain money for Colonial development, no matter how desirable the object nor how urgent the necessity may be, according to the reports of our local representatives in Africa. Under the existing system it is highly improbable that a Secretary of State for the Colonies knows anything about these matters, unless they are brought directly to his notice for action to be taken. Colonial Secretary to-day, he may have been yesterday at the Board of Trade, and to-morrow, perhaps, he may be Secretary of State for India or for some other high office under the Crown. In any case, he cannot be omniscient; with the result that most things in his department are practically run by the permanent officials. Indeed, had he even views of his own on any particular line of policy—apart from the traditional policy of his department—he would be a very courageous Secretary of State to overrule the recommendations of the permanent Under Secretary for the Colonies: being for so short a period, relatively, in office, it is so much easier and less risky for him to allow things to jog along in the old rut. The permanent Under Secretary of State, on the

other hand, has such an enormous variety of entirely different conditions demanding his supervision, for which practically he is responsible, and is so fettered by financial considerations, that it becomes all but impossible for him to deal promptly and effectively with the many vital issues in African affairs that arise in the course of his routine duties. Nevertheless, it should not be impossible to evolve a better system than the present for the governance of Crown Colonies and Protectorates in Africa, simply by introducing economy of effort and unity of control.

The question of Native Taxation may be used as an illustration. Not only does the extent of this impost vary at present in the several Territories, but the systems themselves are fundamentally at variance. It is often stated, and on good grounds, that the native himself is the chief gainer by the introduction of orderly, just, and settled government in countries where previously there had been no law but force in its crudest forms, and that it is only proper he should contribute towards the cost of governance by a special direct tax, bearing in mind the fact that indirect taxes do not affect him so much as the immigrant European. That is true, of course ; but native life in our more or less civilised possessions in Africa at the present time is not what it was twenty years ago (e.g., in Nyasaland, where native hut-taxes now constitute more than half the revenue collected), and it seems highly desirable that the whole question of native taxation should be recon-

sidered, in the light of present-day conditions, with the object of introducing a uniform and more equitable system.

In British East Africa, for some time past, a movement on the part of European colonists has been gathering impetus in the direction of securing from the Home Government a fairer and larger measure of self-government, or at least of their own representation on local institutions. In the early stages of development in Tropical Africa, there was no better form of administration than the out-and-out Crown Colony—a benevolent autocracy—but, side by side with rapid development, the number of European settlers has increased so greatly that the demand for a more effective representation of their interests is reasonable enough. Especially in such matters as the framing of native policy and land laws do our colonists in British East Africa, Uganda, and Nyasaland consider they have the right to influence legislation, in view of the fact that much capital has been invested by British planters, farmers, and traders, and many new industries have been started and fostered by them. Thus, there is ample material to draw upon for an independently elected Legislative Assembly—a body which should be invested with effective powers.

So long as a country is governed by an executive which is purely official, and by a legislative body, of which a majority is appointed by the Home Government, it cannot reasonably be contended that independent colonists have any real status or influence in

the affairs of the country of their adoption. When, eventually, normal conditions of life supervene, the Authorities would do well to consider the advisability of reorganising the forms of administration now out of date in Eastern Africa, with a view of giving our colonists a genuine share in their own government. Moreover, arising from the war itself, a new factor—or an old one in more concrete form—is becoming insistent, on account of its wider application: that of military service, since a large number of European settlers have been killed or wounded in defence of Imperial interests.

Probably no part of the British Empire, in proportion to their European population, has contributed more generously towards filling the ranks of the Army than Rhodesia, Nyasaland, British East Africa, and Uganda; in addition to which, all these Protectorates have rendered invaluable help by the recruitment of native battalions and a very large number of native carriers for service in German East Africa. Events have abundantly shown that, in our native soldiers, we possess in those countries a valuable military asset in any future reconstruction; and steps should be taken to form a permanent reserve of native troops, the nucleus of which is, in point of fact, available now that hostilities have been terminated. The cost of such a reserve would be slight—not amounting in Nyasaland ¹ to more than thirty shillings *per capita*

¹ The formation of a small native Reserve was authorised in Nyasaland some years ago, all the members being time-expired soldiers of the King's African Rifles. The men, who came up for one month's training every year, received, in addition to their

per annum—and it would be the “insurance force” of our Protectorates.

Hitherto, in the Protectorates, there has been no uniform system of dealing either with Crown Lands or so-called “waste” lands; nor can we discern any common policy in the method of their disposal. When Nyasaland originally was taken over by the British Government, one of the first urgent matters awaiting settlement was that of a large number of claims advanced by Europeans who had bought or acquired lands from native chiefs. These claims were considered, and freehold titles granted for such areas as were awarded. All the rest of the land in the Protectorate, under the numerous treaties made with chiefs, their headmen, or people, were taken as having passed to the Crown. Since then—or up to 1910, when my official connection with Nyasaland terminated—the policy adopted was based on the assumption that the Government stood *in loco parentis* to the chiefs, and that one of its first duties was to reserve an adequate extent of land for all possible native requirements throughout the country. Subject to this proviso, Government sold land in comparatively small blocks to incoming settlers and farmers, giving freehold titles (or leaseholds, if desired) on reasonable terms. The conditions of purchase, not being onerous, encouraged settlement; and the purchase of large blocks for speculative

pay for that period, a small retaining fee paid monthly. The service is popular; and, now that so many natives have received a military training, the Force, even from its initiation, would constitute an effective military unit.

operations was absolutely vetoed.¹ Under the system at present in force in Nyasaland, in respect of the sale of Crown Lands, leases only are granted: (i) For ordinary purposes, for any term not exceeding twenty-one years, and (ii) For the purpose of planting a "slow maturing product," for any term not exceeding ninety-nine years. No freehold titles are given; but provision is made under leaseholds for a "reassessment of rent" by Government, after the expiry of one-third of the term, and again after the expiry of two-thirds of the term.

This is a system that cannot be expected to commend itself to the would-be colonist, to whom one of the chief inducements for self-banishment to an inaccessible and undeveloped region of the world is, that he and his fellow-colonists may benefit ultimately by the development and improvements introduced by them. The idea that the fruit of his labour—not to speak of the capital sunk—and the improved value of the land, should revert to the Crown, does not appeal to him any more than to others in like circumstances. A colonist, as a rule, wants a freehold title. He looks forward to developing his land, making his profits by planting, farming, or what not, and then selling the land at an appreciated price. If his holding be for a term

¹ In the early days of British East Africa, very large areas of land were acquired by persons who held them for speculation. Later on, this policy was abandoned, and the opposite extreme adopted, by the authorities: no freehold titles were granted; only leaseholds.

only, he is fettered all round; he shirks permanent improvements, and the value of his property, owing to the diminishing limit of the term of expiry, necessarily decreases in relative value.

In Native Africa, there never has been any real title to the possession of definite blocks of freehold lands, by individuals, other than the power of the native king, or chief, to hold them against all comers. Sub-chiefs settled with their people on separate portions of the land, and the village headmen arranged among themselves rough limits for individual cultivation. It would be too dangerous a practice to allow chiefs the unrestricted sale of land to Europeans: naturally, they have to submit to Government control in this respect. If, then, the ruling principle be that the land belongs to the chiefs, I consider it essential that Government, in the interests of the mass of the native population, should accept responsibility and take in hand the regulation of all dealings in land, without exception. If they consider it right to allot a portion of the purchase-money, or rents—or, for that matter, the whole—to the native chiefs, they can do so: but care should be taken to ensure any such benefits reaching the bulk of the population, since large sums handed over to the chiefs themselves too often, if not invariably, are frittered away in foolish extravagance and wasteful expenditure.

One of the first matters, therefore, to be considered by an African Council—such as has been suggested—is this very important question of dealing with

spare lands in our Eastern African possessions, in the light of our experience in other progressive colonies. The contingent question of native education also should be taken in hand, and a suitable scheme adopted, applicable to all the Protectorates. Our experience in Egypt and the Sudan is an invaluable guide in this respect.

There is another big outstanding question in Africa: how to deal with the problem of Labour. All tropical countries need a supply of native labourers to undertake work that cannot be done by Europeans. In the absence of a reliable supply of labour, development is handicapped and sometimes arrested. In Eastern Africa, we have a considerable supply of black labourers; and although the conditions vary in the different Protectorates, in none can it be said that the natives are over anxious to engage in strenuous work. The African can secure all necessities of life—supplying his modest wants so easily—and by the expenditure of so little effort, that he sees no object in working too hard. How, then, are we to create an incentive to work?

We cannot adopt any system of compulsory labour, of course, even in a disguised form. At the same time, we consider that indolence, as such, is detrimental to all people alike, and that men should contribute capital, or its equivalent in labour, towards the development of the country in which they live, if only for their individual betterment. What inducement, therefore, can we offer?

In the first place, in one shape or another, we introduce a direct but moderate impost such as a hut-tax, or a more general poll-tax, the money for which has to be earned. Next, we endeavour to create new wants: clothes, ornaments, manufactured goods and luxuries of all kinds. All this represents a gradual process of regeneration, as the native is by nature very conservative and, therefore, slow to adopt new tastes or acquire ambitions. But we endeavour to raise his ideals and to inculcate the view we ourselves hold: that man should not be satisfied with mere existence, like the beasts of the field, but should adopt civilisation and everything that, in the main, we consider to be essential to a civilised life. We ask him, therefore, to produce something—other than for his own immediate wants—whether it be by labour done for an employer, or on his own account.

These simple lessons of life have taken root and borne good fruit in more than one of our African Dependencies, notably in Nyasaland and Uganda. What, above all, is needed, is a uniform policy in all matters pertaining to native labour throughout Eastern Africa. None of our Protectorates should encourage the migration of labour, as a general policy; and, if there be in some of these at present more labourers than can be profitably employed, and who desire to work in outlying countries, an organised labour system should be adopted, allowing for a restricted number of volunteers to migrate to another British Protectorate under guarantees that

provide for the return to their own homes. Every effort, however, should be made to provide profitable occupation in the development of each country, so as to discourage migration even for short periods.

I have already referred to the shipping trade on the East African Coast, which, up to comparatively recent times, was mainly in German hands. The "Deutsche Ost Afrika" Steamship Company, controlled by the Woermann group, and aided by a generous State subsidy, gradually established a monopoly of coastwise trade, in addition to its ocean traffic; and, for a time, our East African possessions were practically dependent on the German line. Eventually, as the volume of this trade increased, the Union Castle Company took up the running, on its own account, and established a regular line of steamships from England to East African ports. Now that the war is over, and Germany is straining every nerve to recover her lost trade, a British line for the East Coast should be subsidised—at any rate, to as large an extent as any German line—and every assistance should be given to enable this trade to be carried on in such manner as shall ensure the bulk of it, both direct and coastwise, remaining in British hands. There need be no misapprehension on our part as to the post-war action of Germany in this matter. We have experienced her powers of organisation and know the extent to which these have been employed for the advancement of German interests throughout the world—illicitly, as well as in ordinary trade com-

petition—and it is certain that Germany will immediately set to work, on lines already prepared and laid down, to re-establish her external trade.¹

As regards the future, a vast amount of reconstruction will be required in Eastern Africa, now that hostilities have ended. Ex-German territory has needed a lot of “smoothing down.” Native life, after the demoralising effects of a long sustained state of savage warfare, has to be re-established, perhaps even on more stable conditions than those existing in the old days. Many thousands of natives who have been employed, either as actual fighters or in work connected with the war, have to be resettled in their own villages or in new ones. The thousands who have been barbarously treated by the German military forces (and who, in many cases, have lost all they possessed), whose women and children have been scattered and their homes destroyed, have to be provided for.

Our own Territories, too, have suffered heavily: plantations of coffee, cotton, and other products have had to be abandoned or neglected by Europeans and by natives who have joined the military forces. Much of the tobacco, cotton, and other crops grown in Nyasaland have been lost, owing to the shortage or dearth of shipping facilities. In fact, all our

¹ An interesting document fell recently into the hands of one of my Portuguese friends in the shape of a confidential paper by a leading German merchant—a refugee in Spain—in which attention was drawn to the immense value to Germany of the trade of the Portuguese African Colonies, and outlining the methods to be adopted for re-capturing this trade.

people overseas must be liberally treated, and particularly the colonists, in order that they may re-establish British industries to which they have devoted their lives and energies. Money will have to be provided for railways, roads, and other public works. Arrested new industries will have to be fostered in every way; and, above all, the education, wants and general requirements of our native subjects will need to be carefully considered and dealt with throughout Eastern Africa.

There has been much said and written for years past regarding a "Cape to Cairo Railway." Cecil Rhodes first suggested this. It was one of his great ideas; what he had in his mind being to hasten the development of Central Africa by a through route from north to south. As this, owing to political complications, became at the time an impossibility, he commenced the overland Cape to Cairo Telegraph line, a scheme which no doubt he would have carried out but for his death.

Since Rhodes' time, however, conditions have greatly changed in Africa. Many of the districts lying along the Cape to Cairo route are already being served and developed by railways running to the East Coast. Nyasaland, Rhodesia, and Mozambique territory communicate with the Coast at Beira, by the Beira and Nyasaland Railways, and a line is now under construction from Beira to the Zambezi River, to connect with the Nyasaland Railway. At present most of the transport to and from the Great Katanga copper country is carried by the Beira Rail-

way. The railway built by the Germans from Dar-es-Salaam to Kigoma (Ujiji), some eight hundred miles in length, serves not only all the districts bordering on Lake Tanganyika, including parts of the Eastern Belgian Congo, but when supplemented by a seventy mile line to connect Lake Kivu with Tanganyika will tap the rich pastoral and agricultural countries surrounding Kivu. A future branch from this line running south-west from Morogoro or Kilossa will open up the fine Uhehe and Langenburg districts and the Nyasa-Tanganyika plateau; while a branch running north from Tabora to Muanza or Victoria Lake will provide the immediately necessary transport for Southern Victoria. The Uganda Railway provides transport for the south-western (high-lying) portion of the Kenya Colony and to some extent for Uganda, and when extended west, through Uganda to Fort Portal, will develop the whole of Southern Uganda. Once Fort Portal has been reached it will obviously be necessary to continue the line across the Semliki to the Kilo goldfields. This mineral district, which may prove to be one of the richest goldfields in the world, has no feasible through route to the sea except to Mombasa.

None of these countries I have mentioned which already send their produce and receive their imports by lines running to the East Coast will ever make use of a route either to the Cape or to Cairo: it would not pay to send their produce to either; what they want is the shortest and cheapest route to a sea port.

As, however, east and west railways continue to be

built, a Cape to Cairo route by mixed rail and steamer (on the lakes) will assuredly come about. Already, in two or three years' time, it will be possible to travel by rail from Cape Town to the south end of Lake Nyasa, and up that lake by steamer to its northern extremity. Lakes Nyasa and Tanganyika cannot fail to be connected by rail before long, and one can already travel four hundred miles up Tanganyika by steamer. From Uvira, at the north end of the Lake, there is a gap of not very easy travel to Lake Albert, where steamer transport is again reached; and between Nimule and Rejaf another gap of undeveloped overland route. From Rejaf to Cairo is all steamer or rail travel. Sudan trade uses and will continue to use Port Sudan on the Red Sea as its shipping port.

There is thus no need, except for diplomatic or sentimental reasons, for a through railway from the Cape to Cairo.

In conclusion, no observations on Eastern Africa would be complete without some reference to missions and the future work of Missionary Societies. In such remarks as I make, it must be understood that I regard the matter entirely from the lay point of view, in considering the extent to which mission work has aided, or may aid, the native to share in the industrial and commercial development of Africa. To the Scottish missions in Nyasaland I have already alluded; and none have been more successful than these in the Eastern African Protectorates. A great work has been accomplished by "industrial" mis-

sions—and, from my point of view, industrial training should be one of the chief objects of every mission in Africa. With so long an experience of Eastern Africa, perhaps I have had exceptional opportunities for observing the natives of Nyasaland and North-Eastern Rhodesia, who have been under the influence of industrial, combined with purely religious, instruction: and I can vouch for the remarkably satisfactory results. The East African Protectorates have emerged from the primitive conditions that prevailed twenty years ago; and native youths should no longer be allowed to loaf and fritter away their lives without some attempt being made to provide them with healthy occupations. Godliness alone, even when truly sincere, does not adequately equip the young African to lead a useful life under the improved conditions of our African Territories; and missions, themselves, require to adapt their scheme of work to meet and make full use of those new conditions, which present many opportunities for advancement.

Moreover, they are not alone in the field of religious propaganda and teaching. Muhammadanism, undoubtedly, is making headway; in many parts of Central, Eastern, and Western Africa, it is spreading more rapidly than Christianity. The reason for this state of affairs is sufficiently obvious. In the first place, polygamy is an African institution: the more wives a man can afford to keep, the better off he is, the more workers he has, and the more children he procures for useful purposes. Muham-

medanism allows polygamy within certain bounds; Christianity forbids it. Secondly, the principles of the Christian Faith are not so readily grasped as the tenets of Islam. And thirdly, every Mussulman—be he trader or traveller—in Africa is practically a missionary, and—himself a native—he can enter more intimately into the life and mind of other natives, making himself better understood than any European missionary, however experienced he may be. The Muhammedan missionary, in short, is one of themselves: the European missionary is a man apart, too often estranged from native habits, methods, and psychology. The cult of Christianity, therefore, is severely handicapped in Africa; and all the more credit is due to our missionaries for the undoubted success of their labours.

The *Mittel-Afrika* programme of pan-Germanism, if not embracing missionary effort, relied mainly on the virtues of German *Kultur*, apart from its preposterous political and commercial ambitions, to create an African "India," for German account. It rests with us to put something better in its place; to make a renewed effort to bring all our Tropical Possessions in Africa into a common programme, in order that the problems of reconstruction may be co-ordinated and fuller advantage taken of the pioneer work of our missionaries, traders, colonists, and administrators.

The Highway of Africa leads through Pagan lands, for the most part; but it is fitted in all essential respects to carry a thin white line of European settle-

ment and culture. No richer lands are to be found, perhaps, in any part of the world, so far as natural resources are concerned; and all that is required to develop these countries is economy of effort and unity of control: in one word, organisation.

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